

Selected
JUL OF LEMON.
Genuine and of Guaranteed
Purity.
This Oil is unsurpassed
for Aroma and
strength.

Sinest
FRUIT ESSENCES.
Prepared from Selected
Fruit by Special
Process.

Sixty
Concentrated
FRUIT ESSENCES
for Stavouring purposes,
and Confectionery,
of every
description.

PURE
Barmless
VEGETABLE COLOURS
for Confectionery,
of guaranteed purity
and exceptional
brilliance.

AND ALL MATERIALS
REQUIRED BY
Brewers,
Rectifiers,
Cordial Makers,
Vine and Spirit
Merchants,
Mineral Water
Makers, &c. &c.

STEVENSON AND HOWELL.

FELLOWS OF THE CHEMICAL SOCIETY &c &c.

MANUFACTURING CHEMISTS

DISTILLERS AND IMPORTERS OF

**ESSENTIAL OILS
OF GUARANTEED PURITY**

**PURE CONCENTRATED
SOLUBLE
ESSENCES**

FRUIT ESSENCES

**PURE COLORINGS
OF EVERY DESCRIPTION**

**ANALYTICAL AND CONSULTING CHEMISTS
TO THE TRADE.**

"Extraqua
Soluble Essence
JAMAICA GINGER
For Aerated Beverages,
Cordials, Syrups, &c.
This Essence is
unparalleled."

**FINE
SOLUBLE ESSENCE**
Or **EVERY DESCRIPTION** of perfect
Aerated Beverages,
Cordials,
Syrups,
etc.

COLOURINGS
Of **Guaranteed** purity,
for Brewers, Rectifiers,
Mineral Water
and Cordial
Makers.

FOAM SYRUP
Amer.
For giving a close
head to all Beverages.
One Pound is sufficient
for 150 gallons of
liqueur.

AND ALL MATERIALS
REQUIRED BY
Manufacturing
Confectionery
Wholesale
Tobacconists
Perfumers,
Soap Makers,
Biscuit Makers, &c.

**STANDARD WORKS, 95A, SOUTHWARK ST., LONDON
AND 128, HOPE ST., GLASGOW.**

SPONGES.

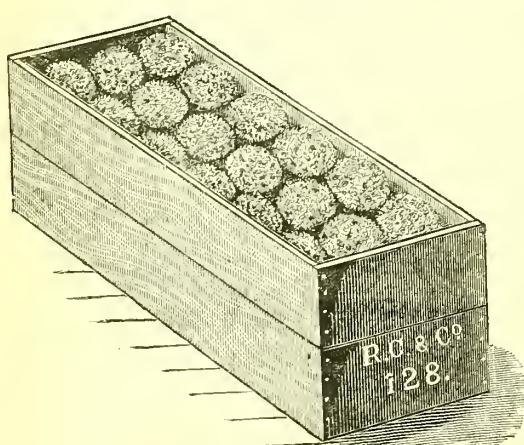


**R. CRESSWELL & CO.,
SPONGE IMPORTERS AND MERCHANTS,
32 RED LION SQUARE, LONDON, W.C.;
And at PIRAEUS and SMYRNA.**

Telegraphic Address, "Cresswell London."

Established 1850.

Sponges adapted specially for Druggists, Perfumers, Saddlers, Brush-makers, &c., will be found fully described in the following Price List—by the Case, Piece or Weight, Sandless or in Sand; on Strings, Cards, and in Blue Card Boxes.



Sponges in Cases.

SANDED OR SANDLESS.

HONEY-COMB SPONGES.

No.	Qty.	Pieces in case, about	Price case.
1	1st	Finest selected shapes, assorted sizes	120 240/-
2	1st	Do. do. do.	75 140/-
3	1st	Do. do. do.	45 80/-
4	1st	Small selected shapes	280 140/-
5	1st	Superior do. large Bath sizes	25 140/-
6	2nd	Do. quality shapes, assorted sizes	125 160/-
7	2nd	Do. do. do.	73 84/-
8	2nd	Good quality shapes, small	280 70/-
9	2nd	Do. large Bath sizes	25 100/-
10	3rd	Do. assorted sizes	145 105/-
11	3rd	Do. do.	85 70/-
12	3rd	Do. large Bath sizes	25 60/-
13	4th	For Stable use, &c.	100 50/-

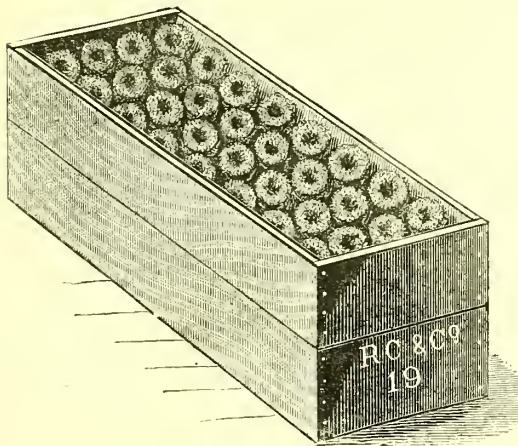
See following pages, 3, 4, in 75.

R. CRESSWELL & Co.,

Sponges in Cases.

SANDED OR SANDLESS.

FINE TURKEY SPONGES.



No.	Qty.		Pieces in case	Price case.
14	1st	Finest selected Cups, assorted sizes	... 110	300/-
15	1st	Do. do.	... 60	200/-
16	1st	Do. Bath sizes	... 75	210/-
17	2nd	Superior Cups, assorted sizes	... 110	240/-
18	2nd	Do. do.	... 60	140/-
19	2nd	Do. Bath sizes	... 35	480/-
20	3rd	Fine Cups, assorted sizes	... 110	180/-
21	3rd	Do. do.	... 65	105/-
22	3rd	Do. Bath sizes	... 35	140/-
23	1st	Turkey Solids, assorted sizes	... 100	140/-
24	2nd	Do. do.	... 100	110/-
25	1st	Flat Saddle, assorted sizes	... 50	190/-
26	1st	Do. do.	... 30	120/-
27	2nd	Do. do.	... 50	130/-
28	2nd	Do. do.	... 30	80/-

BROWN TURKEY SPONGES.

No.	Qty.		Pieces in case.	Price case.
29	1st	Finest selected, assorted sizes	... 130	90/-
30	1st	Do. do.	... 70	55/-
31	2nd	Superior quality do.	... 130	63/-
32	2nd	Do. do.	... 70	40/-
33	3rd	Slate quality do.	... 300	25/-

FINE EGYPTIAN SPONGES.

A very good-looking and cheap kind of Fine Toilet Sponge; very durable, and soft when wetted.

No.	Qty.		Pieces in case.	Price case.
34	1st	Finest selected, assorted sizes	... 110	100/-
35	1st	Do. do.	... 210	70/-
36	2nd	Good quality do.	... 110	80/-
37	2nd	Do. do.	... 210	55/-

Florida Sponges on Strings.

	Pieces.	Per string.		Pieces.	Per string.		
A	Finest Wool, Bath sizes	... 12	30/-	J	Finest Velvet, Bath sizes	... 12	25/-
B	Do. do.	... 12	24/-	K	Do. do.	... 12	20/-
C	Ivo. do.	... 12	20/-	L	Ivo. medium sizes	... 15	18/-
D	Do. medium sizes	... 15	22/-	M	Do. do.	... 15	16/-
E	Ivo. do.	... 15	15/-	N	Ivo. do.	... 15	12/-
F	Do. do.	... 15	10/-	O	Do. do.	... 15	9/-
H	Do. medium small	... 15	7/6	P	Do. medium small	... 15	7/-
I	Do. do.	... 15	5/-	Q	Do. do.	... 15	4/6

Florida Sponges in Cases.

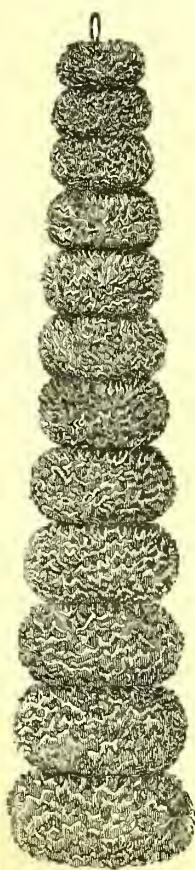
	Pieces.	Price case.		Pieces.	Price case.		
FA	Finest Toilet and Bath	... 150	75/-	FD	Finest Toilet and Bath	... 100	150/-
FB	Do. do.	... 100	75/-	FE	Do. do.	... 100	200/-
FC	Do. do.	... 100	100/-				

West Indian Sponges (Raw) in Bales.

We hold the largest stock in Europe of these goods, and can quote exceptionally low prices.

Finest Wool	...	...	...	...	...	...	...	...	...	from	4/6 to 7/-
Finest Velvet	...	...	...	...	...	...	...	...	...	...	4/6 to 6/6
Finest Yellow	...	...	...	...	...	...	...	...	...	...	1/6 to 2/6
Finest Grass	...	...	...	...	...	...	...	...	...	...	1/6 to 2/6
Finest Fine Reef...	...	...	...	...	...	...	...	...	...	...	3/ to 6/-
Finest Hardhead ...	...	...	...	...	...	...	...	...	...	...	2/ to 5/-
Finest Glove	...	...	...	...	...	...	...	...	...	...	1/ to 2/6

** Commoner qualities at all prices.



32 RED LION SQUARE, LONDON, W.C.

Sandless Sponges on Strings.

The Strings of Sponges, for which we quote below, are put in a form which will facilitate the trade of wholesale and general buyers considerably. They are compact, of excellent value, and well adapted for display.

HONEY-COMB SPONGES ON STRINGS.

No.	On each string.						Per string.
	1	Best Toilet Honey-comb, 1st quality, 18 pieces...	18	"	18	"	
2	"	"	"	"	18	"	12/-
3	"	"	"	"	18	"	18/-
4	"	"	"	"	18	"	24/-
5	"	"	"	"	12	"	30/-
6	"	Bath	"	"	12	"	27/-
7	"	"	"	"	12	"	36/-
8	"	"	"	"	12	"	48/-
9	"	large "	"	"	6	"	60/-
10	"	"	"	"	6	"	36/-
11	Good Toilet	"	"	2nd quality, 18	"	"	48/-
12	"	"	"	"	18	"	9/-
13	"	"	"	"	18	"	12/-
14	"	Bath	"	"	12	"	18/-
15	"	"	"	"	12	"	27/-
16	"	"	"	"	12	"	36/-
17	Good General	"	"	3rd quality, 18	"	"	48/-
18	"	"	"	"	18	"	16/-
19	"	"	"	"	18	"	12/-
20	"	"	"	"	12	"	14/-
21	"	"	"	"	12	"	18/-
22	"	"	"	"	12	"	24/-
							30/-

FINE TURKEY SPONGES ON STRINGS.

No.	Q'ty.	On each string.	Per string.	No.	Q'ty.	On each string.	Per string.	
23	1st	Superior Fine Turkey Cups	12	18/-	37	1st	Sup. Small Fine Trky. Cups, 3 rnds., 25	18/-
24	1st	"	12	24/-	38	1st	"	24/-
25	1st	"	12	36/-	39	1st	"	30/-
26	1st	"	12	48/-	40	2nd Good	"	15/-
27	1st	"	12	60/-	41	2nd	"	20/-
28	1st	"	12	72/-	42	2nd	"	25/-
29	1st	"	12	84/-	43	Good Fine Turkey Solids	"	9/-
30	2nd Good	"	12	15/-	44	"	"	12/-
31	2nd	"	12	20/-	45	"	"	18/-
32	2nd	"	12	30/-	46	"	"	25/-
33	2nd	"	12	40/-	47	"	"	33/-
34	2nd	"	12	50/-	48	"	"	29/-
35	2nd	"	12	60/-	49	"	"	48/-
36	2nd	"	12	72/-				

FINE EGYPTIAN SPONGES ON STRINGS.

No.	Best Egyptian, 20 pieces on each string	On each string.	Per string.
50	20	..."	6/-
51	"	20	9/-
52	"	20	14/-
53	small	35	6/-

SANDED SPONGES (by weight).

Honey Comb	...	...	...	...	...	...	...	...	...	...	...	...	5/- to 15/- per lb.
Turkey Toilet	...	...	...	...	...	...	...	...	...	...	...	...	10/- to 50/- ,

R. CRESSWELL & Co., 32 Red Lion Square, London, W.C.



Sponges on Cards.

Sponges on Cards, as quoted below, have now a very large sale. Buyers are cautioned against inferior imitations of our goods. The Cards bearing our Trade Mark will be found vastly superior to all others in the following particulars, viz., value, appearance, and regularity of assortment.

The Cards can be supplied without prices on, for Export.



	Per doz. Cards.	Per doz. Cards.	
Superior 1d. Honey-comb School, 1 doz. on card	... 7/-	Superior 1d. Turkey School, 1 doz. on card	... 7/-
2d. " Toilet " " " " 14/-		2d. " Toilet " " " 14/-	
3d. " " " " " " 21/-		3d. " " " " " 21/-	
4d. " " " " " " 27/6		4d. " " " " " 27/-	
6d. " " ½ doz. " " " 21/-		6d. " " " " " 42/-	
1s. " " " " " " 42/-		1s. " " " " " 84/-	
1s. 6d. " " " " " " 63/-		1s. 6d. " " " " " 63/-	
2s. " " " " " " 84/-		2s. " " " " " 84/-	
2s. 6d. " " " " " " 105/-		2s. 6d. " " " " " 105/-	
3s. " " " " " " 84/-		3s. " " " " " 84/-	
3s. 6d. " " " " " " 100/-		3s. 6d. " " " " " 100/-	
4s. " " " " " " 112/-		4s. " " " " " 112/-	
5s. " " " " " " 105/-		5s. " " " " " 136/-	
7s. 6d. " " " " " " 157/6		7s. 6d. " " " " " 212/-	
10s. " " " " " " 210/-		10s. " " " " " 272/-	
2d. Pocket Slate Sponge and Label Damper (in handsome crystallized tin boxes, assorted colours) 1 doz. on card ... 14/-		3d. Egyptian Toilet, 1 doz. on card ... 21/-	
6d. Sanitary Turkey on bone handles, 1 doz. on card 42/-		4d. " " " " " 27/6	
		6d. " " " " " 42/-	
		1s. " " " " " 84/-	
		1s. 6d. " " " " " 63/-	
		2s. " " " " " 84/-	
		2s. 6d. " " " " " 105/-	

** Special Discount off Carded Goods for large quantities.

Sandless Sponges (by Weight).

READY FOR USE.

HONEY-COMB SPONGES.

ASSORTED SIZES.

No.	Pieces to the lb.	Price per lb.
1 Finest selected Toilet and Bath shapes, of superior texture ... about 25	35/-	
Special Bath shapes and sizes ... 7 to 12	32/-	& 35/-
2 Best Toilet shapes, fine and strong texture ... about 25	25/-	
Special Bath shapes and sizes ... 7 to 12	28/-	
3 Ordinary Bath shapes, good and fine texture ... about 18	17/-	
4 Good large Cuts, for Carriage, Household, and Stable use ... 16	14/-	
4A Superior Cuts for Bath & Toilet use ... 16	18/-	
5 Medium sizes for general cleaning purposes ... 40	12/-	
6 Sup. sml. shapes for Nursery use, &c. ... 72	13/-	

TRADE
MARK.

May be had in handsome Blue Enamelled Cardboard Boxes of —

½ dozen at 4/-, 5/-, 6/-, 7/-, 8/- per box.

1 " 5/-, 6/-, 7/-, 9/-, 10/-, 12/-, 15/-, 18/- per box.

Superior large Bath shape, in boxes containing 1 sponge at 4/-, 4/-, 5/-, 5/-, 6/-, 7/-, 8/-, 9/-, 10/- each.



May be had in handsome Blue Enamelled Cardboard Boxes for the facility of buyers.

Boxes containing 1 dozen, at 4/-, 6/-, 8/-, 10/-, 12/-, 18/- per box.

 " ½ " 12/-, 15/-, 18/-, 21/-, 24/- per box.

And upwards to 120/- per box of half-a-dozen.

TERMS: 2½ PER CENT. DISCOUNT, 3 MONTHS NETT.

CHEMISTS' TRANSFERS.**MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.,
CHEMISTS' TRANSFER AGENTS,**

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION. Immediate attention given to Foreign Commissions. Terms for Valuation on application. N.B.—No CHARGE TO PURCHASERS.

THE CHEMIST AND DRUGGIST is published weekly.

THE CHEMIST AND DRUGGIST is the business organ of the trade.

THE CHEMIST AND DRUGGIST is subscribed for by the principals of Drug establishments.

THE CHEMIST AND DRUGGIST is looked for and read by masters, assistants, and apprentices.

THE CHEMIST AND DRUGGIST has the widest and most influential circulation of British Journals of Pharmacy.

For these reasons it is the best medium for letting the Drug trade know of Businesses for Disposal, Businesses Wanted, Situations Vacant, and Situations Wanted.

All Advertisements should reach the Office,
42 Cannon Street, not later than Thursday morning.

BUSINESS WANTED.

WANTED, a Chemist and Druggist Business. Any person having one for disposal, please send full particulars to C. D., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES FOR DISPOSAL.**REVISED SCALE OF CHARGES.**

Announcements appearing under this heading are charged as follows:

Five Lines (Fifty Words) and under 3*l*.*s*. Cash must be sent with order.

FOR SALE, on account of illness, an old-established Business, returning £10 per week, ready money; no reasonable offer will be refused. Address, "Chemist," care of Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, London, E.C.

SOUTH OF ENGLAND.—Good Prescribing and light Retail; could be greatly increased by a small capitalist; price £300; rent on lease £30: stock and fixtures worth more; corner shop; only wants seeing. L. S., care of Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

FOR DISPOSAL, on account of death of proprietor; the old-established Chemist and Druggist Business; situated in one of the finest positions in Hull; very central to docks, close to new market hall, piers, &c.; good house with warehouse; prescribing good, full prices. Address letter, 71 Queen Street, Hull.

NORWICH.—An old-established Retail Chemist's Business for immediate Disposal, situated in the best possible position, and where there is constant and great traffic. The business has not of late been energetically worked owing to the principal not giving attention to it. Address, for particulars, Mr. Rackham, Catton Grove, Norwich.

MIDLANDS.—Dispensing, Retail and Prescribing; returns £950; unusual profits; price 500. London Suburb.—Good class business; returns £500; rent £50; price £450. Another very profitable Retail and Prescribing; returns £500; rent £45; price £200. Also a genuine Business; returns average £373; reasonable offer wanted. Kent.—Returns £805; price £650. Another; returns £440; reasonable offer wanted. Also a genuine business; returns £800; month's trial allowed. Further particulars of these and others, of W. H. Taylor & Co., 79 Queen Street, Cheapside, E.C.

EMPLOYERS WANTING ASSISTANTS.**REVISED SCALE OF CHARGES.**

Announcements appearing under this heading are charged as follows:

Five Lines (Fifty Words) and under 3*l*.*s*. Cash must be sent with order.

WHOLESALE DRUG TRADE.—Required, an Invoice Clerk. Full particulars to A. B. C., Mr. C. R. Brown, 40 Sun Street, E.C.

JAMES WOOLLEY, SONS & CO., Manchester, have a vacancy in their laboratory for an Assistant (Minor examination); also for a Junior.

LABORATORY MANAGER for the Colonies; a thoroughly competent man, well up in all pharmaceutical preparations, and capable of taking entire charge. Apply, by letter, stating age and salary, to G. H. E., care of Housekeeper, 7 Union Court, Old Broad Street.

WANTED, a Junior Assistant, in an old-established family business; short hours; no Sunday duty; one just out of his time, or an improver would be treated with. W. Wise, Chemist, Launceston.

JUNIOR CLERK, chiefly for Invoices: in Wholesale Drng trade. Address, with particulars, and stating salary, Box C. 76, Post-Office, Leeds. Reply in three days or declined.

WANTED immediately, Junior Assistant, indoor; aged 21; active and intelligent; salary £36; increase of 2*s*. per week every six months. A. N. & Co., 23 Duke Street, Grosvenor Square, W.

ASSISTANTS WANTING SITUATIONS.

Announcements appearing under this heading are charged

12 WORDS FOR 1*s.*

every additional 3, 4, or 6 words 6*d.*

COLONIAL.—A Chemist's Assistant desires situation abroad; aged 24; competent. S. T., City News Rooms, Ludgate Circus, London.

A S JUNIOR; in or out; 5 years' good experience: excellent references; state terms. N. P., care of Ayerton & Saunders, 149 Duke Street, Liverpool.

JUNIOR, in good retail and dispensing business; aged 20; 4 years' experience; abstainer. Davies, 8 Market Place, Hinckley.

AS ASSISTANT; out-door preferred; or to Manage a Branch, where time would be allowed for study, if convenient; aged 39. C. B., Mrs. Parry, 6 Trelawn Terrace, Hendon, London, N.W.

WHOLESALE.—Situation wanted in Drug or Sundry House; unexceptionable references, &c.; aged 25. W., 71 Queen Street, Hull.

MANAGER or Senior; varied experience; aged 38. Address Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

YOUNG FRENCH CHEMIST, who speaks English and Italian, wishes for a situation in a good Pharmacy; would give lessons in French; good references, and modest pretensions: seaside preferred. Address, Damien, Paris.

APPRENTICESHIPS.

REVISED SCALE OF CHARGES.

Announcements appearing under this heading are charged as follows:—

Five Lines (Fifty Words) and under 3/6. Cash must be sent with order.

APPRENTICE.—Messrs. Gostling & Co., Chemists, Diss, Norfolk, have a vacancy for a well-educated youth as an apprentice.

APPRENTICE.—Wanted immediately, a respectable, well-educated Youth, as an apprentice; one who has passed Preliminary. T. Marshall, Chemist, Beverley, Yorkshire.

MISCELLANEOUS.

MESSRS. BURROUGHS, WELLCOME & CO. desire to thank the Drug trade, both wholesale and retail, throughout India and the Colonies, for the kindness and courtesy shown to their representative, Mr. Wm. Shepperson. They very highly appreciate the friendly reception accorded to him generally, and take this opportunity of expressing their thanks.

WANTED, on Commission, Representatives of first-class Houses doing business with Medical Men and Hospitals, in town or country. Pagny, Wallace & Co., 16 Union Court, Old Broad Street, E.C.

HOMEOPATHY.

APRIZE OF TWENTY-FIVE GUINEAS will be given by Major Wm. Vaughan Morgan, the Chairman of the London Homeopathic Hospital and Medical School, for the best Essay on Medical Treatment, with special reference to the Scientific System of Hahnemann. There will be no restrictions as to title or mode of exposition, but the essays are not to exceed 25 pages octavo, boursgeois (about 13,000 words), and must be received at the Homeopathic Hospital, Great Ormond Street, London, not later than the 1st April, 1886, sealed by a trotto, and accompanied by a sealed envelope, bearing the name and address outside, and enclosed in a box containing the name and address of the writer. The Essays will be adjudicated on by a Committee elected from the British Homeopathic Society and the Board of Management of the Hospital. It is intended to issue a first edition of 50,000 copies of the selected Essay, and a similar issue will probably be made in the United States.

W. KEMP & SON, HORNCastle,

IMPORTERS OF ALL KINDS OF
GENUINE BEESWAX & HONEY

Samples and Close (*carriage paid*) quotations on application.
When enquiring please state quantity.

TOILET SOAPS AND PERFUMERY.

Chemists get the Best Quality at Lowest Prices direct from the Manufacturers. Before purchasing your Spring Stock send for

J. W. MARTIN & CO.'S PRICE LIST,
PENGE, LONDON, S.E. (No Travellers.)

GUM EBANI.

BEST AND CHEAPEST SUBSTITUTE FOR GUM ARABIC.

RABE & KUNTZE, Magdeburg.

FOR CLEANING PLATE.

BRADLEY & BOURDAS'S ALBATUM OR WHITE ROUGE,

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6d. Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

THE ORIGINAL ARNICATED WHITE FELT

CORN AND BUNION PLASTERS,

INVENTED AND ESTABLISHED BY

HENRY YOUNG,
A.D. 1846,

AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

SUPPLIED BY ALL WHOLESALE HOUSES.

N.B.—Please see that YOUNG'S Goods are supplied, as there are many worthless imitations.

Manufactory, 72 Clerkenwell Road, London, E.C.
(LATE OF CARthusIAN STREET.)

BY ROYAL LETTERS PATENT.

WATERPROOF & GREASEPROOF WAXED & SATIN PAPER

FREE FROM TASTE AND SMELL.

Used by Confectioners, Chemists, Soap Makers, Tobacconists, Silversmiths, &c. SUPERSEDES TINFOIL or other substitutes.

Size—20 x 30 8s. Od. per Ream. 7d. per Quire.

" 18 x 30 7s. 9d. " 6d. "

" 15 x 30 6s. 6d. " 6d. "

Sample Quire, Post Free, 10d.

Great reduction according to quantity. Special attention paid to Export orders.

HENRY MASON & CO.,
WAX PAPER MANUFACTURERS (the Original Makers),
Debnams Road, South Bermondsey, England.

VEGETABLE BUTTER COLOURING

(OF OUR OWN MANUFACTURE).

THIS PREPARATION has been before the trade upwards of four years, and is rapidly increasing in favour; it is superseding the Danish and all other makes, being quite as efficient and much cheaper; it does not deposit or crust on the bottles, as is often the case with the foreign-made article. It contains no Ailine, is free from the bitter taste common to most other colorants, and has the great advantage of NOT COLOURING THE BUTTERMILK. To purchasers of bulk, it affords a considerable source of profit, and is well worth the attention of Druggists in the grazing districts.

Price in bulk, 1/4 per lb.; 1/2 in 2-gallon bottles, less 5 per cent. discount. Special quotations in larger quantities.

To meet the views of many of our friends, we have commenced to put this article up in bottles also, under the title and trade-mark of the "Silver Chuin." It is very attractively got up, and will command a ready sale; the bottles contain more than either Danish or American, while the price to the retailer is lower than that of any other Butter Colouring in the Market.

Price in Bottles	{	6d., 1/-, 2/- Size	}
		4/- 8/-, 16/- Per doz.	

A handsome Show Card, printed in colours, and suitable Counter Bills may be had on application.

PROPRIETORS AND MANUFACTURERS—

OLDFIELD, PATTINSON & CO.,

WHOLESALE DRUGGISTS,

17 TODD STREET, MANCHESTER.

May be ordered through any Wholesale House, or of our

London Agent—B. SUART, 24 Queen Victoria St. (who holds Stock of all sizes).

EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word. If name and address are not included, one penny per word must be paid.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The Purchaser of anything advertised in the Exchange Column may remit the amount to us. We acknowledge receipt to both parties by post-cards, and only pay the money deposited on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6d. on any transaction of 3*s.* or less, or 1*s.* if above that amount.

Please note that the Exchange Column will appear Weekly. Advertisements must be received not later than Thursday in each week. Chemists will do well to look up their Surplus Stock and send an Advertisement of same.

FOR DISPOSAL.

Optical.

Spectacles (Druiff's make); clearing out at under cost; splendid margin. Mainprize, Chemist, Bridlington Quay.

Proprietary Articles.

Gum sorts, 1*lb.*; Whelpton's pills, 8*s.* 5*d.* doz. Elmitt, Horncastle.

Adshad's celebrated cutaneous ointment, 2*s.* 6*d.*; ditto antihilous pills, 1*s.* 6*d.* Prosser, Chemist, Gateshead.

Surplus.—4 cwt. gum arabic, 10*d.*; 2 cwt. sandrac, 1*s.* J. Winter, 31 Akeds Road, Halifax, for samples.

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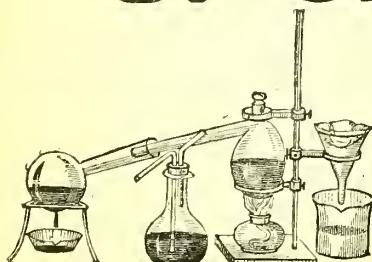
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In the beginning, peptic and pancreatic solutions were the order of the day. Pepsin was isolated, but it was of little good ; pancreatin was extracted, but it was useless. Solutions of animal tissues, malodorous, with thick deposits, and undergoing digestive or putrefactive decomposition, were thus the nearest approach that could be obtained in the shops to a pure active digestive enzyme. The first isolation of active digestive enzymes—preserved dry, like seeds of grain, and retaining their pristine purity and strength, and of reasonable cost—were prepared by Fairchild. He was the one who originated and first prepared Peptonising Powders,* and all others are imitations of his. He also made the Pepsin and Pancreatic Tabloids.

It is not the terrors of the law, but an eternal sense of justice that makes an honest man respect the inalienable rights of another, be they trade names or money lent without a note as to a friend. These are not idle words, and we brand as *imitators* those who are now copying our new inventions and pirating our trade names.

When a man discovers something new and valuable, and utilises as a participial adjective a word not so used before, and frames a suitable name, entirely new—the worth of the name depending on his efforts and the popularity of his advances—the hue and cry of others to use the same term as soon as he is well under headway is a communistic plea to divide among themselves the profits that rightfully belong and would naturally accrue to the inventor. What shall we say, then, when prominent and well-known houses not only imitate our

articles, but with the most absolute *sang froid* pirate our trade names, and in bold letters advertise their imitations in the journals ? But more of this anon.

Now those whose only *forte* has been digestive ferment think it worth their while to abandon the "works of their own hands," and become our ardent imitators and learn of us. Why, therefore, should not the physicians who are prescribing ferments go straight to the fountain-head, and get the genuine articles instead of the imitations ? It is a very shortsighted policy in medicine, aside from any dangers of poisoning, to dabble with cheap and uncertain products.

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A farmer said he would like to have all the land that joined his own ! Bonaparte, who had the same appetite, endeavoured to make the Mediterranean a French lake. Czar Alexander was more expansive, and he wished to call the Pacific *my ocean* (Emerson). Milton writes of—

"Blind Melisigines, thence Homer called,
Whose poem Phœbus challenged for his own."

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Heart Shape	1	3 x 4½	1 size,	"	0 8	0 8	0 8	0 8	1 4	1 0
Heart Shape	2	4½ x 6	1½ "	"	1 0	1 0	1 0	1 0	2 0	1 6
Heart Shape	3	4½ x 7½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
Heart Shape	3½	5½ x 7¾	3 "	"	2 3	2 3	2 0	2 0	4 0	3 0
Heart Shape	4	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
Heart Shape	5	8 x 9¾	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
Long Shape	1	2¾ x 4	1 "	"	0 8	0 8	0 8	0 8	1 4	1 0
Long Shape	2	4½ x 6¾	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
Long Shape	2½	4½ x 8½	3 "	"	2 3	2 3	2 0	2 0	4 0	3 0
Long Shape	3	5½ x 9¾	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
Long Shape	4	6½ x 11	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
Long Shape	5	7½ x 14½	8 "	"	6 8	6 8	6 0	6 0	12 0	8 0
Oval Shape	1	4½ x 6½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 0
Oval Shape	2	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 0
Oval Shape	3	7½ x 9¾	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
Saddle Shape	1	6½ x 12½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 0
Saddle Shape	2	7 x 15	8 "	"	6 8	6 8	6 0	6 0	12 0	8 0
Saddle Shape	3	8 x 16	12 "	"	8 8	8 8	8 0	8 0	15 6	12 0
Wrist PLAISTER	1	3 x 10½	3 "	"	2 3	2 3	2 0	2 0
Knee PLAISTER	2	4½ x 15	6 "	"	4 6	4 6	4 0	4 0

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			d.	s. d.	16 inches in width.					
Emp. Plumbi, for Ladies' Breasts	1	Diam. 6½ in.	4 size	2 8	Emp. Achaësium opt.	4/0	5/6	12/0	12/0	21/0 4/0
Emp. Plumbi, for Ladies' Breasts	2	" 7½ "	6 "	4 0	Adhesivum	3/6	..	..	..	..
ditto spread on Chamois	1	" 6½ "	.. ..	4 0	Ammon. c. Hydarg	16/0	..	30/0	36/0	5/6
ditto	2	" 7½ "	.. ..	6 0	Antim. Pot. Tart.	10/0	..	24/0	30/0	4/0
BREAST PLAISTERS.	No.	Size of Leather	No. 1 Quality, Per doz.	No. 2 Quality, Per doz.	Belladonna	18/0	20/0	27/0	27/0	36/0 5/6
Emp. Belladonna, for Ladies' Breasts	1	Diam. 6½ in.	5 4	4 0	Calefaciens	11/0	12/0	15/0	15/0	24/0 4/6
ditto	2	" 7½ "	8 0	6 0	Cerat Saponis	8/0	9/0	14/0	14/0	24/0 4/6
ditto spread on Chamois	1	" 6½ "	8 0	6 0	Dreadnought	9/0	10/0	14/0	14/0	24/0 4/6
ditto	2	" 7½ "	12 0	9 0	Elemi	9/0	10/0	14/0	14/0	24/0 4/6

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on White "					Emp. Achaësium opt.	4/0	5/6	12/0	12/0	21/0 4/0
" " " " 8/0					Adhesivum	3/6
Every other description of Plaster used in Pharmacy or Private Formulae					Ammon. c. Hydarg	16/0	..	30/0	36/0	5/6
spread on any material, to suit any climate.					Antim. Pot. Tart.	10/0	..	24/0	30/0	4/0

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Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s. Extra Fine and Strong, 6s. per lb.; 12 lbs. and upwards, 5s. 6d. Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma, and makes a thoroughly good article. Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s. Quantity required, three fluid czs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour, and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d. Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This essence will be found most valuable to the general trade.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. Trade Price, 8s. 6d. per lb.; 12 lbs and upwards, 8s. "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemist's Journal*.

HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite aroma, making a most delicious and refreshing approximation to Champagne. Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d. per lb. Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S TONIC ALE ESSENCE.

Tonic Ale made from this Essence is strongly recommended as a most agreeable, non-intoxicating, and appetising beverage, in the place of Bitter Beer. Price, 6s. 6d. per lb.; 12 lbs. and upwards, 6s. Quantity required, 5 fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

NOTE.—The above are specially recommended to manufacturers requiring the very finest Essences obtainable.
There is nothing in the market to equal them.

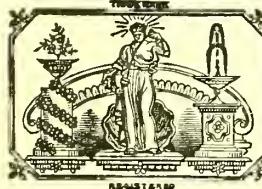
A FEW OF THE MANY REPORTS OF THE LEADING HIGHEST MEDICAL AND OTHER JOURNALS ON MY PREPARATIONS ARE HERE QUOTED:—

SOLUBLE ESSENCE OF GINGER.—"It should entirely supersede the official preparation of the British Pharmacopœia."—*Medical Press*. "This Essence is of a very delicate and beautiful appearance, the aroma is fine and powerful, and its strength is very great indeed. The flavour is really exquisite, and it concentrates in quite an extraordinary degree the very best aromatic qualities of ginger."—*Drinks*, London, Sept. 1, 1884.

GINGER CHAMPAGNE MADE FROM HAY'S ESSENCE.—"An excellent and most agreeable beverage."—*The Lancet*. "One of the most delicate and wholesome drinks in the market."—*Medical Press*. "The fine Aroma of Ginger which Mr. Hay has caught with remarkable success is an excellent substitute for Alcohol, as it gives what old port wine drinkers used to call 'body,' and to many people besides professed teetotalers, an occasional change at least from the Royal French Beverage to its less costly, but equally sparkling and more refreshing, English rival. A welcome treat."—*The Chemist and Druggist*.

GINGER ALE MADE FROM HAY'S FORTIFIED ESSENCE.—"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger. It is a beverage which is sure to win favour wherever introduced."—*The Chemist and Druggist*.

The difference between preparations made from the above Essences and those made from the numerous spurious imitations of the above, bearing the name of Soluble Essences, is most marked, and no manufacturer using the latter can compete with one using Hay's Preparations, as is universally known. *The greatest care is used in packing for Export.*



W. HAY, MANUFACTURING CHEMIST,
BEVERLEY ROAD, HULL, **ENGLAND**

Indentors, to prevent disappointment, should specify that the goods are to be of Hay's Manufacture.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.

SUPPLEMENT TO "THE CHEMIST AND DRUGGIST."

SATURDAY, MARCH 27, 1886.

Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

KRONENQUELLE

CROWN SPRING (Registered).

THE NEW NATURAL MINERAL WATER for the Treatment of DISEASES of the KIDNEYS & BLADDER.

SPECIFIC FOR GOUT.

This natural Lithia Spring, although only recently brought before the Medical Profession, has gained a high reputation on account of its quick and decided action even in most obstinate cases.

Dr. Mortimer Granville, M.R.C.P., in his new work, "Gout in its Clinical Aspects," writes:—"Vichy, Vals, and the other best-known waters are all apt to cause flatulence, while the purging waters are, according to the view I take of gout, distinctly contra-indicated, because they draw fluid away from the kidneys, which it is all-important to flush. The only water I prescribe is the Kronenquelle, etc."

Through all Wholesale Houses and Chemists, or from the
Sole Consignees: W. SCHACHT & CO., 26 Finsbury Pavement, London, E.C.

CAUTION.—Messrs. W. SCHACHT & CO. beg to inform the Trade generally that all cases are labelled "KRONENQUELLE (Registered)," together with their name and address printed in BLUE INK.

McMINNIES LONDON E.C.
New York
Sydney
SODA WATER MACHINERY
AND ALL ACCESSORIES
FOR THE TRADE
BRATBY & HINCHLIFFE
HEAD OFFICE
SANDFORD ST. ANCOATS, MANCHESTER.

BOXES BOTTLES MACHINERY,
ESSENCES.
Catalogues Circulars Testimonials
Post Free

GEO. MASON & CO.'S SPECIALITIES FOR INVALIDS,

ESSENCE OF BEEF,

CONCENTRATED BEEF TEA,

MEAT LOZENGES, &c.

As Supplied to the leading London Hospitals.

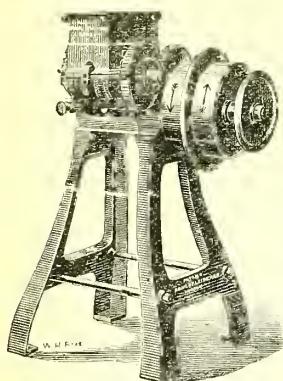


A Trial of our Preparations will at once prove their superiority over all others, and to which they are the cheapest.

PRICE LIST POST FREE.

417 KING'S ROAD, CHELSEA, LONDON, S.W.

FREED FROM PRUSSIC
ACID BY AN
IMPROVED
PROCESS.
UMNEY'S
ESSENTIAL
OIL OF
ALMONDS
CONTAINS NO
PRUSSIC ACID.
CONTAINS NO
ALCOHOL OR
ARTIFICIAL
OIL OF
ALMONDS.
WRIGHT LAYMAN & UMNEY. SOUTHWARK-LONDON.



CHEMISTS' MACHINERY.

PILL MASS KNEADING MACHINES.
PILL MAKING MACHINES.
DRUG GRINDING MACHINES.
SIFTING MACHINES.

FULL PARTICULARS OF ABOVE ON APPLICATION TO

WERNER & PFLEIDERER, 86 Upper Ground St., Blackfriars Bridge, LONDON, S.E.

HARVEY'S SAUCE

For FISH,
STEAKS,
GAME,
&c.

CAUTION.

Each Bottle
of this celebrated
Sauce, prepared from
the Original Recipe, bears
the well-known Label, signed—

Elizabeth Lazenby

This Label is protected by PERPETUAL INJUNCTION in Chancery of the 9th July, 1858, and without it
none can be GENUINE.

Prepared only by E. LAZENBY & SON, LONDON.
And sold Retail by Grocers, Oilmen, Italian Warehousemen, &c., throughout the Kingdom.

FOR INVALIDS & PERSONS OF WEAK DIGESTION.



ESSENCE BEEF.
AND OTHER SPECIALITIES.

IN TINS & GLASS BOTTLES.
Price List on application to the
LONDON MANUFACTURING CO., 59 to 61, HATTON GARDEN LONDON E.C.

SPECIAL NOTICE & CAUTION.

BRAND & CO.

The Original Manufacturers of Essence of Beef (green label under wrapper), and other Specialities for Invalids, have

NOT REMOVED

From their SOLE ADDRESS, No. 11
LITTLE STANHOPE STREET, MAYFAIR, W, and caution the trade to

BEWARE of IMITATIONS.



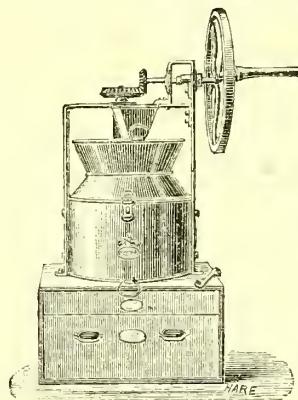
NOTICE TO CHEMISTS AND MANUFACTURERS.

DESIDERATUM MIXER

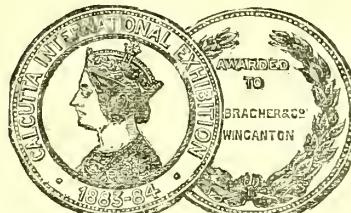
BRACHER'S PATENT

A REAL TIME, LABOUR, AND MONEY SAVER.

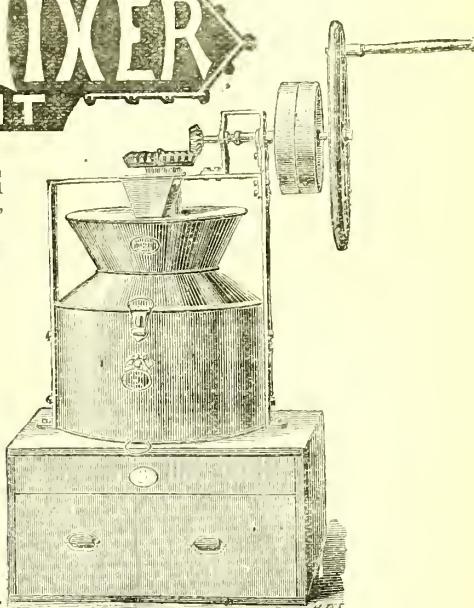
These Machines are admirably adapted for mix'g all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the pestle and mortar, supplying a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalters, Colour Merchants, and Manufacturers.



CALCUTTA INTERNATIONAL EXHIBITION.



GOLD MEDAL.



UNSUBMITTED TESTIMONIAL IN FAVOUR OF THE "DESIDERATUM" MIXER (BRACHER'S PATENT).

From CHARLES GOLDSTRAW, Agricultural Chemist, &c., 24 Oxford Street, Bilston, November 27, 1885.

GENTLEMEN.—If my opinion is worth anything to you, I am pleased to append the following:—After having used one of your 28-lb. size "Desideratum" Mixers some two or three years, and wanting a larger one, I took considerable trouble in ascertaining if I could find a mixer which would do the work more effectually; but I must candidly admit that, after most careful and exacting comparisons on all points, I give yours the preference; hence the present order for a 2½-cwt. size.

Messrs. P. H. BRACHER & Co.

Yours, &c.,
C. GOLDSTRAW.

Send for Illustrated Price List and full particulars, Post Free.

BRACHER & CO., WINCANTON AND YEOVIL, SOMERSET.

** All Communications to be addressed to Wincanton.

NESTLE'S MILK FOOD FOR INFANTS.

ALSO WELL ADAPTED FOR CHILDREN AND INVALIDS.

Prepared at VEVEY, SWITZERLAND.



The only Perfect Supplement and Substitute for
Mother's Milk.

Easy of Preparation—requires merely the addition
of water.

UNIVERSALLY RECOMMENDED BY PHYSICIANS.

TWENTY-TWO PRIZE MEDALS AWARDED TO THE FIRM.

F R Y ' S

Pure Concentrated

C O C O A



TRADE MARK.

Prepared by a new and special scientific process securing extreme solubility, and developing the finest flavour of the Cocoa.

J. S. FRY & SONS, BRISTOL, LONDON, & SYDNEY, N.S.W.

DR.
RIDGE'S
PATENT
COOKED
ROOP
FOR INFANTS & INVALIDS.

Sells better, keeps better, and gives more satisfaction, and is more extensively advertised than any other food.

Send for full particulars, Counter Bills, Show-cards, Almanacks, and Prices—

DR. RIDGE'S CO., ROYAL FOOD MILLS, LONDON, N.

THE CELEBRATED LONDON TEAS.

A SAFE AND PROFITABLE ADDITION TO A CHEMIST'S BUSINESS.

EVERY PACKAGE SIGNED

Tower Tea

EVERY PACKAGE SIGNED

Tower Tea

THE LONDON BROKEN TEA	... for Retail at 1/8 per pound.
THE LONDON 2/- TEA	... " 2/0 "
THE LONDON 2/8 ASSAM TEA	... " 2/8 "

THE BEST TEA—HANDSOMEST AND PERFECTLY PROTECTED PACKAGES.

A CERTAIN LARGE SALE—MOST LIBERAL ALLOWANCES TO AGENTS.

VOLUNTARY EVIDENCE OF LIVING AGENTS

Chemists—to each of whom direct reference is permitted.

NORTH.

ROtherham, Jan. 2, 1886.

Your Teas are giving great satisfaction in this district. The London Broken Tea is splendid value, and has won for itself a large consumption. It is only necessary to induce families to try these Teas to secure for them a permanent sale.

HUMPHREY DAVY.

Chesterfield, Dec. 30, 1885.

I tried several Tea Agencies in succession, and was dissatisfied with the result, as I failed in each case to establish an increasing demand. Early in 1879 I was induced to take your Teas, and the following is, I believe, a correct statement of the quantities I sold during the first five years:—1879, 979 lbs.; 1880, 3,243 lbs.; 1881, 4,398 lbs.; 1882, 4,755 lbs.; 1883, 6,367 lbs. I have had a steadily increasing demand from the first, and am convinced that your Teas are better value for money than any wrapped Teas offered.

ALFRED LOWE.

York, Jan. 7, 1886.

Having been your Agent for some years, I think it only fair to say that the sale of your Teas and the satisfaction they have given to my numerous customers is highly gratifying; and, in my opinion, you place your Agents in a position that enables them to compete with anyone else in the Trade.

W. T. HEY.

SOUTH.

Salisbury, Jan. 1, 1886.

Since I have had the Agency for your Teas, which is about five years, the sale has been steadily increasing. My customers speak in the highest terms of the Teas, and I find that when a trial has been made a regular customer is the result.

JOHN ROWE.

FOWEY, CORNWALL,

Jan. 1, 1886.

I have always found a ready sale for your Teas, and they are much appreciated by all my customers. I sell double the quantity I did at first.

J. WELLINGTON.

HERNE HILL, S.E.

Jan. 6, 1886.

I accepted the Agency for this district about twelve months ago, since which time the sale has gone on steadily increasing. Some of my customers say that the London 2/- Tea is quite equal to what they have been purchasing from their grocer at 2/6, 2/8, and 3/-.

JOHN MORTIBOY.

EAST.

Great Yarmouth, Dec. 31, 1885.

It is now above four years since I commenced to sell your "London Teas," and I must confess that when I ordered the first half chest I did not expect to sell it, but am now pleased to be able to say that it sold without difficulty, and created a demand that has ever since been increasing, and has far exceeded my most sanguine expectations.

W. SHEPPARD POLL.

GRIMSBY, Dec. 30, 1885.

I have been a retailer of packet teas thirty-two years, but was never able to give my customers such good value for their money before as I have been since I accepted your Agency, upwards of four years ago.

I have never had the slightest complaint respecting your Teas, but customers are constantly saying they are the best Teas to be had in the town.

ENOCH PALMER.

WOODERIDGE (Population 4,525).

Jan. 1, 1886.

Since my introducing your Teas in March, 1883, I have sold ten times more than before. The average sale for 1884 and 1885 has been 2,557 lbs. per annum. I am daily receiving gratifying testimonials of the superior quality, blend, and flavour of the "London Teas."

EDWARD J. EATON.

WEST.

Bangor, December, 1885.

The sale of the Tower Teas with us, considering we do not keep sugar or groceries, has realised our most sanguine expectations, as our last order, over half a ton, will go very soon.

Before your Agency we had tried two others, and failed to sell 28 lbs. in a month.

HAMILTON & JONES.

PEMBROKE, Dec. 31, 1885.

I have much pleasure in bearing testimony to the superior quality of the Teas I have received from you during the five years I have been Agent. The increased sales year by year will be sufficient guarantee of the public appreciation of it. I consider it wonderful value, and of a uniform quality and flavour. I sell twelve chests for every one I used to do in the old style. R. ORMOND.

BISHOP'S CASTLE, Jan. 2, 1886.

I have found the "London Teas" sell very well and please every class of customers. My sales in two years have increased between 600 and 700 per cent., and are still advancing—and, as you are aware, I now order from you every fortnight.

GEO. STRAWSON.

THE GREAT TOWER STREET TEA CO., LTD. LONDON.

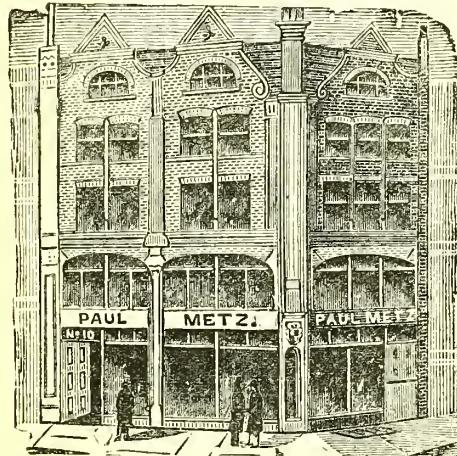
PAUL METZ,

10 JEWIN STREET, LONDON, E.C.,

SOLE CONSIGNEE OF THE "WHEEL" BRAND VERY BEST QUALITY

PINE AND WILLOW BOXES.

WHOLESALE AND EXPORT.

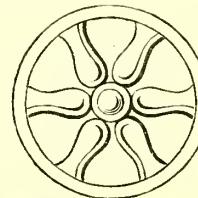


The lids and bottoms warranted to be well glued in with a Patent Paste that will stand dry or damp weather.

As I always keep a large stock of the most saleable kinds, all orders can generally be executed at once, without delay.

TRADE

MARK.



IMPORTER OF
ALL KINDS OF CARDBOARD BOXES.

SOLE CONSIGNEE OF

KANOLDT'S APERIENT TAMARIND LOZENGES
AND
APERIENT TAMARIND FRUIT CONSERVES.

IMPORTER OF

SUPERIOR GERMAN MUSTARD LEAVES

On the back of which Chemists can have their Name and Address printed.

AGENT FOR THE BEST CONTINENTAL MANUFACTURERS OF

GERMAN SASH TOOLS & CAMEL-HAIR PENCILS OF ALL DESCRIPTIONS.

THERMOMETERS, LACTOMETERS, HYDROMETERS, &c.,

And all kinds of Chemical Glass and Porcelain Apparatus.

"Acme" and XLCR German Polishing Pomatum, &c., &c.

"ACME" BRAND HARD AND SOFT MEDICINAL CAPSULES, PERLES, ETC.

"ACME" MENTHOL CONES.

PRICE LISTS CAN BE HAD ON APPLICATION.

Telephone Number,
1852.Advertisers' & Buyers' Reference List,
AND INDEX TO ADVERTISEMENTS.TELEGRAPHIC ADDRESS—
CHEMDRUG
LONDON.

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

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CLASSIFIED LIST OF ALL ADVERTISERS

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Brathy and Hinchcliffe

Brefill's, Lim.

British Syphon Co.

Bush, W. J., and Co. (Foam Producer, &c.)

Chemists' Aerated Waters

Elixir (Bath)

Favarger, H.

Gallais, E. (Min.)

Guerc Frères

Harrison, W. B.

Massall and Co. (Citric Acid, Phospho)

Aerated & Mineral Wts & Plant—cont.

Irids and Co.

Ingram and Royle (Mineral and Vichy)

Jewsbury and Brown

La Bourboule

Meadowcroft, W.

Mel n, C.

Mills and Co. (Bonne)

Mu-nby, Chas., and Co.

Rydlands, Dan

Schacht, W., and Co. (Kronen-

queine)

Stephie and Co.

Taylor, T., and F. J.

Tyler, Haywar, and Co.

Vallet, L. (Bottles)

Wilcock, N. G. ("Victory")

Younger and Ridley (Temper-

ance Wines)

ACETIC ACID

Dunn and Co.

ALKALOIDS

Howards & Sons (Cinchona)

Smith, J., and H.

AMMONIA

May and Baker

APPARATUS

Cetti, E. (Meteorological)

Cubley and Preston (Nitro-

ometers)

Follow and Ba'e, Lim.

M. Roberts (Water-bath)

Morgan Crucible Co.

Orme (Scientific)

Pat. Plumbing Co.

Rothermel, Paul (Vinegar)

Wolters, Otto (Balances)

AGENCIES ABROAD

Campbell, Neil S. (Colombo)

Cocking (Japan)

Davison, A.

Eisher and Mendelson (Phi-

ladelphia)

Evans, Sons and Mason

(Canada)

Felton (Melbourne)

Fougera (New York)

Horowitz (Rome, Italy)

Kempton (New Zealand)

Lemon (Port Elizabeth)

Phipps and Co. (Bombay)

Prosser, E., and Co. (Sudan)

Reed, F. and Co. (Natal)

Roberts (Paris, &c.)

Rocke (Melbourne)

Sharland and Co. (Auckland, N.Z.)

Shirreffs and Co. (A. Shahabadi)

Symes and Co. (Simla)

BANDAGES

Biley and Son

Bole Hall Mill Co.

Gibbs, Cuxton, and Co.

Hutchinson, A., and Co. ("He-

-band")

Liverpool Lit. Co.

Robinson and Sons

Seabury and Johnson

BANK

Birkbeck Bank

BEDS, WATER

Hutchinson, A., and Co. (Sheet-

ing Cloth)

Pocock Bros.

Hooper and Co.

BEESWAX & HONEY

Kemp, W., and Son

BICARB. SODABrunner, Mond and Co.,
Gaskell, Deacon and Co.**BISMUTH PREP.**

May and Baker

BOOKSDobell, Dr. (Bournemouth)
James, Dr. Proser (Guide to
New B.P.)

Kimpton (Discount)

Smith, J. G. ("Aer'd Wtrs")
The Physician's Pharmacopœia**BOTTLES**Aire and Calder
Flockhart and Foster ("Eclips" Stoppers)

Breffitt, Lim.

Brooks, Peel (Perfumers)

De Luca, G. V.

Hearn, Riddle

Kilner Bros.

Lang, Jonas and Jules

Potts

Rylands, Dan

Simecek, T.

Thompson, Millard and Co.

Toogood (Feeding)

Vallet

York Glass Co., Lim.

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Arundel (Folding Card)

Austin and Co. (Cardboard)

Banks & Patcliffe (Soaps, &c.)

Bethell, Thomas P. (Folding)

Bremar, Ang. (Cardboard)

Folding)

Estes' Turned Wood

Metz, Paul (Pine and Willow)

Noakes, B., and Co.

Patent Safety Sample

Robinson and Sons (Cardboard)

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Thompson Norris Manuf. Co.

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Condon, R. (Flesh)

Dukas and Co.

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Lynch and Co. (Electric)

Tipton and Howard

BUTTER COLOUR,

&c.

Bush, W., Son, and Co. (Mari-

goldine)

Meyer and Henckel

Oldfield, Pattison & Co.

CAMPHOR

Howards and Sons

Keene and Ashwell (Homeo-

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May & Baker

Murray, Sir James (Fluid)

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Betts and Co. (Metallic)

Chevalier (Solubles)

Denoual, J. (Medicinal)

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CEMENT

Foulkes

Kay (Coueline)

CHALK PRECIP.

Dunn and Co.

Levermore and Co.

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Framwell, E., and Son

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Bush, W., and Co.

Linn and Co.

Gaskell, Deacon and Co. (Bi-

carbonate of Soda)

Howards and Sons (Pharma-

ceutical)

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Sutton and Co. (Volumetric

Analyses)

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Duncan, Flockhart

Macfarlan, J. F.

Smith, T. and H.

Zimmermann

CHLORODYNE

Bage, T., Blyton, and Co.

Davenport (Browne's)

Freeman

Towle, A. P.

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Symonds and Co.

COCOA AND CHO-

COLATE

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Fry (Malted)

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Symington (Various Essences,

COD-LIVER OIL

Allen and Hanburys

Beiss Bros.

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Southall Bros. and Barclay

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Hooper, B., and Co.

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Harvey's Pencils (Jocklin,

W. J. and Co.)

Robinson, B.

Young's

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Pat. Plumbeo Co.

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Darling (Coffin's)

Jewsbury and Brown

Martin, J. W. (Rozalium)

Rimmel

Sutton, O., and Co.

Thompson and Capper

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Jones, Dr. C. H. (Mechanical)

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Rimmel

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Wyley and Co. (Pure Terebene)

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Bourne Johnson

Evans, Lescher and Webb

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Lynch and Co.

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Burroughs, Wellcome and Co.

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Werier and Pfeiderer

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DUTCH MEDCNS.

Bieber, J. D.

DYES

Ayerton and Saunders

Crawshaw, E., and Co.

EAU DE COLOGNE

Farina, J. M. (Gegenüber)

Farina, J. M., No. 4

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Orme and Co.

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Ingram and Son

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Schutze and Co.

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Jackson, J. C. (Peppermt. &c.)

May and Baker

McFarlan, J. F.

Rennie (Spiritus)

Rocke, Tompsett (Eucalyptus)

Stevenson and Howell

Todd (Am. Peppermt.)

Wright, Layman and Umney

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May and Baker

Meadowcroft, T. W.

Sutton, Stevenson and Howell

Sutton, Francis and Co. (Stan-

dard S. Solutions)

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Epps, James, and Co.

Gilbert, W.

Gould, E., and Son

Keene and Ashwell

Leath and Ross

Leath and Ross

Thompson and Copper

HOSPITALS

London Homœopathic

ETHER

Duncan, Fleckhart and Co.

(Chlorie)

May and Baker

Robbins

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Cibils

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Liebig Co.

London Manufacturing Co.

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Poths (Leube Rosenthal)

Richards, J. M. (Delacre's)

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Evans, Son and Co.

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Stearns, F., and Co.

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Hearn, Ridell and Co.

Kilner Bros.

Lang, J. and J.

Richards, Charles

(Tub

Canner)

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Rimmel

Sawson and Swan

Schwenker, E., and Co. (Paper)

Silicated Crhn Fltr Co.

The Chamberland-Pasteur

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(Peptised Milk)

Van Abbott (Diabetic)

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Kirmond

Mills, R. M.

Ross and Co.

Schweppes (Dry)

GLOVES, BATH

Condron (Flesh)

Titterton and Howard

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Price's Candle Co.

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Bush, W., and Co.

Goodall, Backhouse and Co.

Stearns, F., and Co.

GRINDING

Bracher, F.

Follows and Bate

Werner and Pfeiderer

GUMS

Fink (Arabic, &c.)

GUTTA PERCHA

Duncan, Flockhart

Stevens, P. A. (White)

HAIR PREPARA-

TIONS

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Bates, T. W. (Frizzeta)

Beechm. Minz Co.

James and Co. (Herbl. Pom.)

Rimmel

Rowland's Macassar

Sturck's Okoumea

Conaureine

Towle Toilet Cream (Thorn-ton's)

HERBALISTS

Butler, McCulloch

Potter and Clarke

HOMOEOPATHIC

Bristol and W. of England

Epps, James, and Co.

Gilbert, W.

Gould, E., and Son

Keene and Ashwell

Leath and Ross

Leath and Ross

Thompson and Copper

HOSPITALS

London Homœopathic

ICE

Barnett and Foster

Harrison, W. B.

INK

[See MARKING.]

Antoine

Bowley and Draper

Clarke, J. T.

Duncan, Flockhart

INSECTICIDES

Galzy, E.

Judson and Son, Lim.

Sandford

PHARMACEUTICAL PREPARATIONS

Allen and Hanburys
Bage, T., Blyton and Co.
Baiss Bro.
Barron, Squire and Co.
Bielter, J. D.
Burgoine, Burdges and Co.
Brougham, Wellcome (Various)
Chevalier, F. (Solubles)
Ctv. Dol and Co.
De Vry (Unshona)
Duncian, Flockhart
Evans, Sons and Co.
Fletcher, Fletcher, and Steven-
son
Gibson, R. (Lozenges)
Harker, Stagg (Various)
Hewlett and Sons
Howards and Sons
Kay Bros.
Keith (Cone, Tinctures)
Lorimer and Co.
Martindale (Nitroglycerine)
Newton, Robin on and Co.
Opfeneheimer (Liq. Euonym.)
Southall Bros.
Stearns (No.-secret)
Walker, Troke
Wink, J. A., and Co.
Woolley, Sons
Wright, Layman and Umney
Wyleys (Various)

PIG POWDERS

Spong

PITCH

Peace, J. R., and Co.

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Mather, W.
Quilliam, J., and Co.
St. Dalmas, A. Pe
Seabury and Johnson
Taylor, E.

PODOHYLLIN, &c.

Keith, B., and Co.
Smith, T. and H.

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Bradley, Bourdas (Alabatum)
Duy and Raisbeck (Steel)
Oakley, John, and Sons
Pickering and Sons
Seeger, H. (Pomatum)
PORCELAIN GDS
Bentley (Opal Glass)
Poths, H., and Co.
Toogood (C.C. Pots, regist)

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POULTRY MDCNS
Wright, J. H. (Egg Producer)

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Howards and Sons
Zimmermann

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SALICINE
Macfarlan and Co.

SALINES

Evans, Sons and Co.
Loimer and Co.

SALT

Hassall, Thos. (Bay)

SANTONINE

Bieber, J. D.

SAUCES

Goodall (Yorkshire Relish)
Lazenby (Harvey's)
Tyte

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Central School
Edinburgh Classes
Liverpool School
London Homeopathic
Manchester College
The London School
The School of Pharmacy
Tully, J.
Westminster College

SELDITY PWDRS.

Chubb, J., and Co.
Stedman

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British Syphon Mfg Co.
Guérét Frères

Idris and Co.

May, Roberts

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Hovenden (Exxesis)

Lloyd, A. S. (Exxesis)

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Curtis, J., and Son

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Lemaire, W., and Co.

Tomlinson and Sons

Treble, G., and Son

Yates, W. S.

STELLOPHYLIN, &c.

Bentley (Opal Glass)

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Griindley

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Mouson & Co. (Cocoa Butter)

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Scott, J. A., and Co.

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Harvey, J. W., and Co.

Jones and Mason (Methyl.)

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Phillips, G., and Co. (Pure)

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Cresswell

Peterson, M.

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Lindner, M.

London Rubber

Richford, E. M.

STARCK

Critchley (Gloss)

Harrop's Glaze

Rosenthal

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Baldy, W. H., and Son

Cett, E.

Colwell

De Pass and Co. (Greenoble

Syringe)

Eshmann Bros. and Walsh

(Catheter)

Gibbs, Cuxon and Co. (Dress-

ings)

Haywood, J. S.

Hodge and Co.

Hooper and Co. (Water Beds)

Jensen, C., and Co. (Pallas

Syringe)

Lynch and Co.

Manson and Schramm (Elastic

Gum)

Maw, Son and Thompson

Powell and Zarstow (Elastic

Gum)

Schutze, F., and Co.

Scott, W. A. (Instrnts, etc.)

Seabury and Johnson (Tissues)

Stephenson and Travis

Thompson, Millard

Orridge and Co.

STOPPERS

Austin and Co. (Sprinklers)
Brooks, Peel (Sprinklers)
Vallet

SUGAR

Gibson, R.

Hoskin, W.

SYPHONS

Barnett and Foster

British Syphon Co.

Guérét Frères

Loris and Co.

Loris, J. and J.

Melin, C.

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Burroughs, Wellcome and Co.

(St. Hypophos Co. Fellows)

Lorimer and Co.

Stevenson and Howell

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Brook, Bond and Co.

Edwards, E. M. (Ceylon)

Lordan and Powers Co.

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Spinner and Co.

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Walker and Dalrymple

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Immissch's (Patent Metallic)

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Betts and Co.

TINCTURE PRESS

Burroughs, Wellcome and Co.

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TOBACCO

Follows and Bate (Cutter)

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Colwell

Haywood, J. H.

Hodge and Co.

Lindsey

Lynch and Co.

Scott, W. A.

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Berdro

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Crocker

Edmunds and Hill

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Evans, Sons and Mason

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Hewlett, Squire

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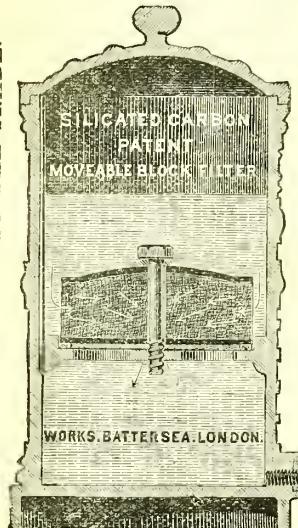
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Domestic Filters (as above), in Cream-coloured Stone-ware, with Plated Taps and Patent Movable Blocks :—

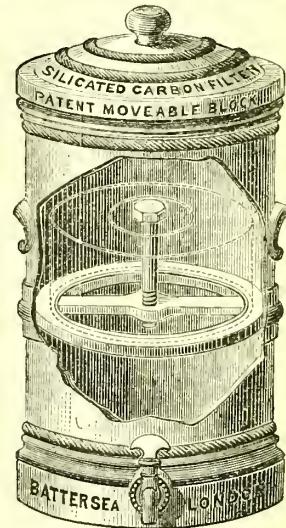
No. 27.	O. $\frac{1}{2}$ gal.	10 6 each.	D. 6 gals.	42/- each.
A. 1 "	14 6 "	E. 8 "	52/- "	
B. 2 "	21 1/2 "	F. 12 "	70/- "	
C. 4 "	32 1/2 "			

In ordering please state "with patent movable block."

The Silicated Carbon Block can be instantly removed, leaving the whole of the interior of the Filter OPEN for inspection and cleansing.

The working parts are stone-ware, and no corrosion is possible.

No loose Pan or inner vessel to cause breakage.



(Elevation with Block removed.)

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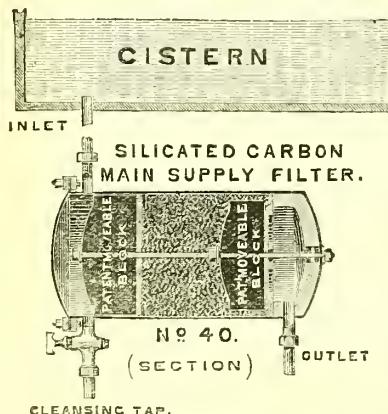
No. 22.	A. 2 gals.	35/- each
B. 5 "	80/- "	

Refrigerative Terra Cotta, &c. &c. :—

No. 25.	2 gals.	31 6/-
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MAIN SUPPLY FILTER, NO. 40,

WITH PATENT MOVEABLE BLOCKS,



FOR MINERAL WATER MANUFACTORIES,

As used by Messrs. Schweppes, London, Liverpool, Glasgow, &c.; and most of the large makers.

Also for Schools, Hospitals, Mansions, &c.

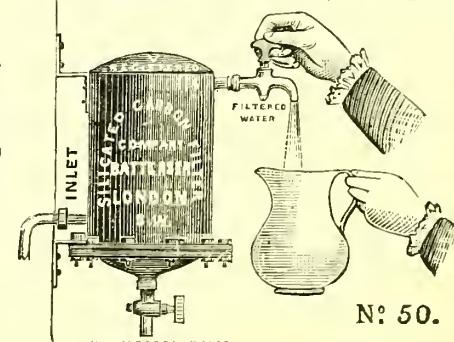
PRICES.

For $\frac{3}{4}$ -in. Pipes	£6 6s.
" 1-in. Pipes	£9 9s.

CONSTANT SUPPLY FILTER,

WITH PATENT MOVEABLE BLOCK.
SILICATED CARBON [TRADE MARK]

NO. 50 (Registered.)



N. 50.

These Filters require no attention from servants, as they are always filled and ready for use. The act of drawing Unfiltered Water cleanses the Filter, by washing away the impurities collected on the carbon. [1]

Complete, Price £8 3s. each.

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SILICATED CARBON FILTER COMPANY, CHURCH ROAD, BATTERSEA, LONDON, S.W.

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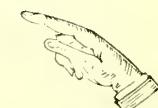
CHEAP! ^{JUDSON'S *}
GLASS FILTERS.



TO RETAIL AT

1 Pint	- - -	2s.
2 "	- - -	3s.
3 "	- - -	4s.

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Good.

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The old styles of Filters were very good in their time, but the discovery of JUDSON'S Filtering Medium, to take the place of the "WORSE THAN USELESS" Charcoal, has entirely put them out of the question for Domestic use.

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At International Exhibitions at BUENOS AYRES, 1882; AMSTERDAM and BERLIN, 1883;
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This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate, and name, GOODALL, BACKHOUSE & CO. No other is genuine.

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THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

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The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 1s. and 2s. each.

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For making delicious Custard without Eggs, in less time and at half the price. Unequalled for the prices intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in boxes, 2d., 6d., and 1s. each.

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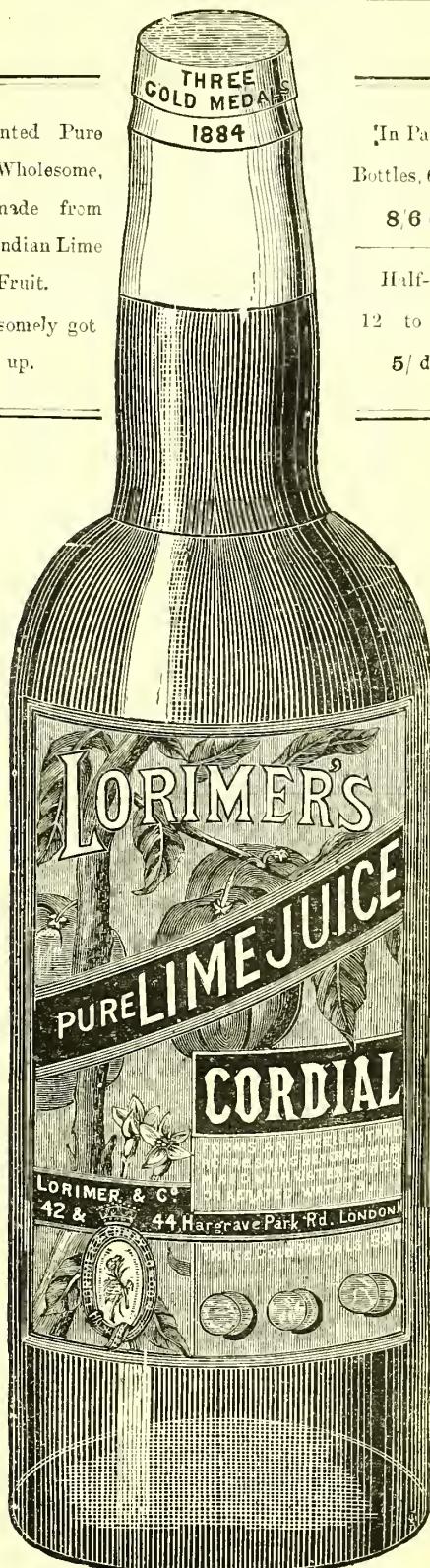
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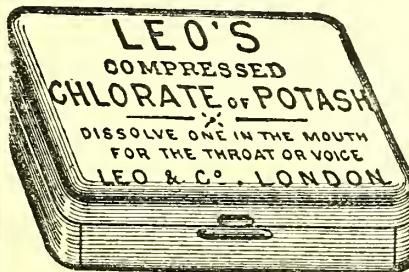
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The Marvellous Cleanser and Disinfectant.

WHAT THE MEDICAL PRESS SAY OF HYDROLEINE:—

"THE BRITISH MEDICAL JOURNAL," Nov. 28th, 1885, p. 1,023, says:—

"The preparations of Hydroleine Disinfectants, just issued, seem to us to be of much importance, and to merit more than a passing notice. It is impossible to give a positive opinion without a prolonged trial extending over some months, but we entertain no doubt that they will soon come largely into use, and that they will in time rank as general favourites. The plan of supplying them in small boxes and tins, which can be purchased by the poor for a few pence, is certainly worthy of recognition. The Laundry Powder is especially valuable and cannot fail to be fully appreciated; whilst the Disinfecting Powders and Preparations for cleaning Brushes and Sponges are most useful. We have been much pleased with the results of our examination, and have much pleasure in recommending a trial of Hydroleine."

"THE LONDON MEDICAL RECORD," Dec. 15, 1885, p. 536; Edited by ERNEST HART, Esq., Chairman of the National Health Society.

"The new Hydroleine (Hydrated Soap Powder) is of considerable value for cleansing purposes, and is well adapted for use in, the Laundry. It dissolves readily, forming a solution which lathers freely. It is useful for washing floors, tiles, marble, glass and delicate articles where the use of soap would hardly be admissible. For horses, dogs, sheep, and other animals, it is an excellent application, keeping them clean without trouble. An analogous preparation is the Hydroleine Carbolised Soap Powder, which is sold at a very moderate price, and is a powerful disinfectant. There are other Powders, intended for cleansing and reviving carpets, and for washing sponges and brushes. We have tried them all, and have no hesitation in saying that they are most efficacious. These Hydroleine Compounds are thoroughly reliable, and will come speedily into general use."

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Specially prepared with refined Carbolic Acid, for Cleansing Bedrooms, Domestic Offices, &c., as a preventative of disease. In $\frac{1}{2}$ -lb. and 1-lb. Tins, at 4*d.* and 6*d.* each.

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The Latest, Purest, and Most Powerful Disinfectant known. In Tins, 2*d.*, 6*d.*, and 1*s.* each.

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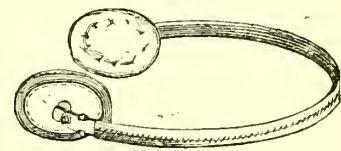
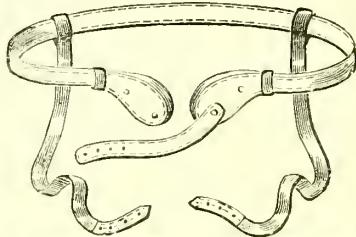
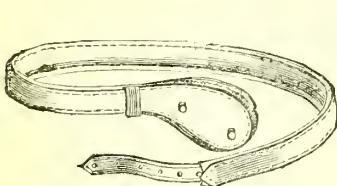
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White, soft, pure, and highly absorbent.

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LANOLINE,

MANUFACTURED UNDER PATENTED PROCESS BY

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Consignments of LANOLINE are now coming in regularly, and our Price List is in the hands of the Wholesale Trade. The article will again come prominently before the Medical Profession in the next few days.

DR. LIEBREICH'S LANOLINE is the only genuine, and we caution the Trade against spurious imitations, which are injurious.

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In consequence of the LIMITED SUPPLY OF VASELINE we beg to introduce to your notice our

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Which we offer in 5-lb. Tins.

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ESTABLISHED 1859.

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We ask the attention of the trade to the report of the interview we publish with Sir John Lubbock in respect of the Shop Hours Regulation Bill. It is not at all unlikely that some measure may be passed, and as Sir John Lubbock has invited the advice of chemists as to their position in regard to any legislation which may be proposed, the latter will only have themselves to thank if anything is done, or not done, against the interests of the majority. We hope our next week's issue will throw some light on the question, and, if there is a general consensus of opinion, it would be well that some representative of the Trade Association should appear before the Select Committee to give evidence.

**

THE ANALYSIS OF 10,000 PRESCRIPTIONS.—A considerable number of chemists have favoured us with reports of 100 or more prescriptions which have been copied in this current year, and there is every prospect that we shall be able to publish an analysis showing very fairly the proportion in which medicines are ordered throughout the country. We have not, however, yet reached more than half the number asked for, and shall be greatly obliged to other dispensers who will favour us. We want a return of any hundred prescriptions copied this year, taken just as they come, showing how many mixtures, pills, lotions, &c., and then how many times in the hundred prescriptions each substance or preparation occurs. Water or excipient should be regarded as one of the substances to be counted.

**

HOPEIN.—Pharmacists had begun to think that the chemists who attacked hopein as being simply morphine under another name, had about established their case, but a letter

from Dr. Hager in the *Pharm. Zeitung* checks this view of the matter. That eminent authority writes, "Permit me to remark that hopein sent to me from England exhibits no similarity in chemical respects to morphine, and is only similar to it in its crystalline form. The affair is to me something mysterious."

**

Professor Hartley would have us submit potent alkaloids, such as aconitine, morphine, quinine, etc., to spectroscopic examination before they are prescribed. Manufacturers had better take note of this. It may not be possible to pass quinine sulphate with even 0.01 per cent. of other alkaloids, such as cinchonidine!

**

RUSSIAN PETROLEUM TRADE.—The Secretary of the London Chamber of Commerce sends us a copy of the following letter which he has received:—

Foreign Office, March 18, 1886.

Sir,—I am directed by the Earl of Rosebery to inform you that Her Majesty's Vice-Consul at Batoum reports that, by order of the Russian Government, a Congress will meet at Baku on the 15/27 inst., to discuss the following among other questions connected with the petroleum trade—namely, measures to further the foreign trade of Russia; exemption from duty of articles from duty of articles required for the utilisation of petroleum products; improvements in Batoum harbour to facilitate the shipping of petroleum; scientific and technical appliances used in the production, &c., of petroleum; the framing of standard rules for the petroleum trade. Lord Rosebery thinks it possible that those interested in the Russian petroleum trade, whether as shippers or purchasers, may be glad to be informed of the meeting of the Congress.

I am, Sir, your most obedient humble Servant,

J. BRYCE.

**

On Tuesday next (March 30), at 8 p.m., the anniversary meeting of the Chemical Society will be held in Burlington House, and on Thursday night, at the same hour, there will be an ordinary meeting, at which the following papers will be read: on "The Determination of Boiling Points," and "The Action of Red Heat on Chloroform," by Prof. Ramsay and S. Young; on "The Use of the Electric Light to influence Chemical Change," by Dr. Armstrong; and on "Some Sulphur Compounds of Barium," by S. H. Viley.

**

REDWOOD TESTIMONIAL.—Messrs. H. O. Huskisson & Co. are subscribers of five guineas, not five shillings, as given in the list printed in THE CHEMIST AND DRUGGIST last week.

**

MR. HERBERT ROCKE.—of the firm of Rocke, Tompsett & Co., of Melbourne and London, is expected to arrive in London about the middle of April.

**

Mr. A. H. MASON.—of the firm of Evans, Sons, & Mason, Limited, of Montreal, was in London at the end of last week, and favoured us with a call. Mr. Mason reports that his firm is doing a satisfactory amount of business in Canada, and that pharmacy is flourishing throughout the Dominion. One of the objects of Mr. Mason's visit to England is to arrange for a good display of his firm's products at the forthcoming Colonial Exhibition in London. The Canadian Chief Commissioner, Sir Charles Tupper, was once a doctor, keeping a drug-shop at Amherst, Nova Scotia.

**

THE METRIC SYSTEM.—Dr. A. C. Matchette tells the *Medical Brief* that a year since he asked for an expression of approval or otherwise of the metric system of weights and measures, from the medical profession and the druggists of the United States, and found 17 physicians and 31 druggists in favour of the system, and 3,641 physicians and 2,764 druggists opposed to it. The 48 wise men who wish for it have, however, made more noise than all the 6,405 who do not want it.

NOTES ON OINTMENTS.

(From a paper by Mr. R. Rother. Amer. Journ. Pharm., 1886.)

LARD.—In course of time lard becomes more or less granular, rancid, or may even be still further damaged by oxidation. Freedom from water retards these changes in a degree. Officially benzoin is used for preservation, and seems to answer very well in the majority of cases, but there is a limit to its capacity in this respect. In this case benzoic acid is doubtless the active agent, but the author questions if it has any retarding influence on oxidation. When benzoated lard is mixed with substances which combine with or destroy the benzoic acid, obviously the basis might as well be without the benzoin.

The author objects to the coloration which benzoin imparts to fats—an objection which has not been experienced by us—and suggests the substitution of tolu for benzoin.

TOLUINATED LARD may be prepared in the same way and with similar proportions of tolu as with benzoated lard. This new basis contains cinnamic acid, a more powerful antizymotic than benzoic acid. An advantage which tolu has over benzoin is in its ready fusibility in the fat. A great part of the balsam dissolves in the lard, and the inert residuum agglutinates and carries down with it all floating particles, so that the clear fat may be completely decanted from the residue. The product, when cooled, has the precise odour of benzoated lard.

OTHER BASES.—Ordinary resin has a preserving influence, and the author expects desirable results from the addition of 1 per cent. only. Yellow wax appears to possess preservative properties; white wax and spermaceti slightly so. Combinations of lard and spermaceti are characterised by clearness of grain, remarkable smoothness and ready fusibility, but are only moderately firm. Wax mixtures are harder, but not so smooth. Contrasted with these stearic acid is quite unalterable under ordinary conditions, but though dissolving readily in melted fats, it crystallises out on cooling. Mr. Rother has, however, employed it with success in various combinations.

PETROLEUM PRODUCTS.—Mr. Rother refers to these. Regarding carbolic acid ointment, he says:—"It is well known that when carbolic acid is dissolved in ordinary fats and oils, it loses its causticity and more decided irritant qualities, while retaining all its valuable medicinal properties. But when dissolved in petrolatum (*paraffinum molle*) it retains an undiminished harshness, even in extreme degrees of dilution." To remedy this he proposes the addition of stearic acid, which he finds successful, and which yields an excellent carbolic ointment. It is obtained by melting an ounce of stearic acid with an ounce of petrolatum, gradually adding seven ounces more of petrolatum, maintaining the heat all the time. One ounce of crystallised carbolic acid is now stirred in this, and the ointment stirred frequently during cooling.

ZINC OINTMENT made with benzoated lard is not satisfactory, because of the decomposing influence of the zinc oxide on the fat, and the oxide may through time combine with the aromatic acid, and thus remove the preservative influence. The author has made many experiments on the ointment, with a view to obtain a smooth and good-keeping preparation. The following formula he found most satisfactory:—

Zinc oxide	4 oz.
Powdered starch	½ "
Spermaceti	½ "
White wax	½ "
Lard	14 "
Balsam tolu	120 grains

Triturate the oxide of zinc with three-fourths of the starch, and sift the mixture with a No. 80 sieve. Rub the coarse portion remaining on the sieve with the rest of the starch, and pass it all through the sieve. Melt the wax and spermaceti with half an ounce of the lard, and gradually add the remaining lard. Now add the balsam, and apply heat for 15 to 20 minutes, not exceeding 60° C., and then decant the fluid portion gradually upon the zinc oxide mixture, stirring it well meanwhile, until an intimate mixture is obtained, which is to be stirred occasionally until the ointment stiffens. We may explain that the object of the starch is to obtain minute division of the oxide, which it is difficult to obtain of a proper degree of firmness in the United States.

MERCURY OINTMENTS.—Stearic acid cannot be added to red oxide of mercury ointment, because in this case it forms stearate of mercury—a white, crystalline, and readily fusible substance, somewhat less soluble in fats than the acid itself. **CITRINE OINTMENT** made with a petroleum fat has been looked upon as an impossibility. The author has experimented in the direction of a suitable formula, and recommends the following as satisfactory:—

Red oxide of mercury	1 oz.
Nitric acid	1 "
Water	180 minims
Stearic acid	3½ oz.
Petrolatum	10½ "

Mix the oxide with the water, and gradually add the acid with constant stirring, so as to prevent the oxide hardening. If that should happen, break down the lumps and warm gently until dissolved. Melt the stearic acid with 3½ oz. of petrolatum, add gradually the rest of the petrolatum. To the fused mixture add the mercuric solution, and warm the whole in the water bath for 10 to 15 minutes. Permit the ointment to cool, and stir it occasionally while stiffening.

CINCHONA CULTIVATION IN BOLIVIA.

THIS ruthless destruction of the cinchona forests in Bolivia by the Indians and half-castes, who monopolised the collection and felled the trees, or stripped them in so careless a fashion as to well nigh destroy them, has lately caused the Bolivian Government to resort to the formation of plantations or *quinates*, which are mostly worked by German colonists. During the seven years which have elapsed since the first commencement was made, these plantations have been extended over large tracts of ground in the districts of Guanay, Longa, Yungas, and Mapue, particularly in the latter.

The greater part of the plantations are found in the broken and undulating region of the Andes, where they are situated on the mountain sides and along the valleys, at an altitude of 3,300 to 3,900 feet above sea-level, which is found to be as high as it is desirable to cultivate. A single tree yields from 15 to 20 lbs. of seed, which is collected in the beginning of the Bolivian summer (November and December). The seed is thickly sown in boxes or in beds of 13 by 3 feet, well watered, and when the young plants have grown to a height of 6 inches, and have developed a few leaves, they are transplanted into pits of 8 to 10 inches depth, and about 6½ feet apart. They are lightly covered with twigs and leaves to protect them during the next three months against the sun's rays, the soil around is carefully hoed, and this careful nursing is continued for two years, when they may be considered out of danger; the loss meanwhile averaging frequently as much as 25 per cent.

After six years the tree should be about 13 feet high, with a diameter half-way up the trunk of 6 inches. If the bark is of the choicest quality the trunk is straight and resembles that of an orange tree. If the tree is left undisturbed until its eleventh or thirteenth year, it will have attained a diameter of over 12 inches, but its bark, although more close-grained and heavier, is less rich in quinine. The best results are obtained by gathering the bark about the seventh year.

The bark is collected by making a transverse incision in the trunk a few inches from the ground, and a second incision 24 inches higher; two vertical incisions, diametrically opposite one another, are then made, and the bark peeled off.

When the tree is stripped it is cut down one foot above the ground, and from its base, which has the bark upon it preserved, about twenty fresh shoots sprout up; these are after a while cut off, with the exception of the two or three most vigorous ones, which are allowed to remain.

A tree yields on an average about 5 lbs. of bark. This bark, spread out in a paved court, dries rapidly in the dry season, but during the rainy season it takes nearly three weeks.

As said above, it is only a few years since the systematic culture of cinchona bark has become a factor in the resources of Bolivia, and it will be some years more before this cultivated bark will take its position among commercial products.

THE SHOP HOURS REGULATION BILL.

THE following is the text of the "Bill to limit the hours of labour of children and young persons in shops," introduced into the House of Commons by Sir John Lubbock, and now under the consideration of a Select Committee:—

WHEREAS the health of young persons employed in shops and warehouses is seriously injured by reason of the length of the period of employment:

And whereas it is expedient to extend in some respects the provisions of the Faetory and Workshops Act, 1878, to young persons employed as aforesaid:

Be it therefore enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited as the Shop Hours Regulation Act, 1886.

2. This Act shall come into operation on the first day of January one thousand eight hundred and eighty-seven.

3. (1) A young person shall not be employed in a shop for a longer period than twelve hours on any one day.

4. Where any person is employed in a shop contrary to the provisions of this Act, the employer shall be liable to a fine not exceeding *one pound* for each person so employed.

5. All offences under this Act shall be prosecuted, and all fines under this Act shall be recovered in like manner and subject to the like provisions with respect to limitation of time, evidence, and otherwise, as offences and fines are prosecuted and recovered under the Factory and Workshop Act, 1878, and with the like right of appeal.

6. Words and expressions to which meanings are assigned by the Factory and Workshop Act, 1878, have in this Act (unless the context otherwise requires) the same respective meanings:

"Shop" includes retail and wholesale shops and warehouses in which assistants are employed for hire, and does not include licensed public-houses nor refreshment houses of any kind.

"Young person" means a person of the age of thirteen years and under the age of eighteen years.

On Monday last the Select Committee of the House of Commons appointed to inquire into Sir John Lubbock's Shop Hours Regulation Bill proceeded with the hearing of evidence. It was stated that the following clauses had been accepted by the promoters and were to be added to the Bill:—"a. Every town council, local board, vestry, or other rural or urban authority, shall, upon receiving a requisition desiring the local adoption of compulsory early closing, and signed by two-thirds of the shopkeepers who are employers of one or more assistants within the district, make by-laws compelling all shops, excepting chemists' shops, coffee-houses, confectioners, eating-houses, fish and oyster shops, fruit and vegetable shops, restaurants, tobacconists' shops, booksellers' and newsagents' shops, to close at the hour specified in the requisition, provided that no shop (except those exempted above) shall be open after 8 of the clock on five days of the week and 10 of the clock on the sixth day of the week, or on any day preceding a public holiday. b. In the excepted shops above-mentioned, and in bookstalls and public-houses, no young person shall be employed for a longer period than twelve hours a day." Mr. James A. Stacey, secretary to the Early Closing Association, also gave evidence, and submitted to the Committee a statement setting forth a list of objections to dealing with this question by legislation. As long as people shopped late employers would keep open their places of business, and the Bill would not affect the hours of closing. So far from this Bill benefiting the great majority of assistants, it might work them harm by increasing individual burdens, lowering the standard of wages, and crippling voluntary efforts in the direction of early closing. No time was mentioned in the Bill for opening and closing, and no provision, excepting by the imposition of a small fine, was made for securing the observance of its restrictions. The Bill would be practically inoperative without the assistance of an army of inspectors. Among other witnesses called, Mr. Shoolbred

and Mr. Marshall, of Marshall and Snelgrove, employing between them 1,250 assistants, 136 being under eighteen, both spoke strongly against the proposed Bill, declaring that if it becomes law they will be disposed to cease employing juvenile labour. Both gentlemen declared themselves in favour of legislation for compulsory closing at a strict fixed hour, and that their businesses were quite as prosperous now as when longer hours prevailed.

The Committee met again on Wednesday last under the presidency of Sir John Lubbock. The chairman stated that a paragraph had appeared in the papers stating that a new clause had been accepted by the promoters, and was to be added to the Bill. That statement was obviously not correct, because the Committee had not yet considered the clauses of the Bill at all. Dr. Butler (medical officer to the Milliners' and Dressmakers' Association), and Mr. Adams (medical officer to the Early Closing Association) gave evidence as to the effect the long hours had on the physical condition of the shop assistants. Among the other witnesses called were Mr. C. Walton (of Messrs. Walton & Co., tea dealers, London), Mr. Capern (Secretary Stalybridge Early Closing Association), and Mr. Rutter (draper, London).

A meeting of tradesmen of all classes, wholesale and retail, convened under the auspices of the Early Closing Association, is to be held at the Mansion House, London, on Tuesday next, (March 30), at 3 P.M.; the Lord Mayor to preside. The following resolutions will be submitted:—

1. "That in the opinion of this meeting the 'Shop Hours Regulation Bill,' as at present framed, would not effect any appreciable good in the interests of youthful employés engaged in shops and warehouses. This meeting believes that no legislation designed to effect a curtailment of the hours of labour in such establishments will effect its object which does not seek to govern the hours at which the establishments are closed."

2. "That in the opinion of this meeting the hardships arising from late shopping, and its consequent late closing, can only be removed, in many instances, by a compulsory closing of shops and warehouses (with specified exceptions) not later than 8 P.M. on five days of the week, and 10 P.M. on Saturdays, or such other day as local convenience may determine."

Metropolitan Reports.

BURGLARY.—The premises of Messrs. Thompson, Millard & Co. were broken into one night last week and some stock was taken away and other stock damaged. They tell us that one or two other firms in the same line of business have been visited in like manner.

At Wandsworth Police Court, on March 19, Alice A. Tharby surrendered to bail on charge of attempting to poison a lady with chloroform and laudanum (see before, page 126). Dr. Dupré now submitted results of his analysis of the tea and milk. The former contained morphia but no other constituent of opium; and the milk contained chloroform. It came out in further evidence that the prisoner had access to laudanum only, and since her arrest inquiries regarding her had been most satisfactory; but not so of another servant who had since been discharged, and upon whom suspicion has fallen. The prisoner was again remanded to allow further inquiry.

The Pharmaceutical Football and Cricket Clubs had a merry meeting on Friday evening, the 19th, at supper in the Holborn Restaurant. There were forty members and friends present, Professor Attfield, as of old, occupying the chair, and Mr. Carteighe (President of the Cricket Club) the vice-chair. The Chairman was supported on the right by Mr. A. H. Mason, F.C.S. (of Messrs. Evans, Sons & Mason, Limited, Montreal), and on the left by Mr. Martindale. Professor Attfield, in submitting "The Queen," made reference to the burning question of the hour, and his remarks regarding dismemberment of the empire were received warmly by the young fellows. Mr. Martindale gave the toast of the evening, which was responded to by the Captain of the Football Club (Mr. Perks), and Mr. Jones (Secretary of the Cricket Club). Mr.

W. H. Ince, in a happy and well-conceived speech, gave "The Pharmaceutical Society," which was replied to by Mr. Carteighe, who humorously turned the chairman's remark regarding dismemberment of the empire to account in reference to the present aspect of pharmaceutical affairs-political. This the Chairman afterwards, in responding to the toast of his health, took up, and expressed his strong hope and conviction that pharmacy in Great Britain would remain a powerful and undivided body. During the evening there was some good music, and the company had an unexpected treat in a graphic description by Mr. Mason of pharmacy and athletics in Canada. Mr. Dudley Jones and Mr. Powrie (a young Australian) specially distinguished themselves by their singing and instrumentation.

The Zoedone Company (Limited) held their annual meeting at the Company's offices, 80 Coleman Street, London, on Monday, the 15th inst. Mr. John Brierley occupied the chair and was supported by the directors, Mr. William Barker, Mr. Charles Buswell, Captain Floyd, and Colonel Mahon. The report for the six months ending December 31st last stated that, owing to the exceptionally unfavourable season, the business of the Company had been very much restricted, and that as a consequence they were unable to pay a dividend; the result, in fact, of the half-year's working showing a total debit balance of 423*l.* 11*s.* 5*d.*, including all rebates to customers. The Company had, however, only suffered in common with the aërated-water trade generally, and with the return of favourable weather there was every prospect of a good year's business. The Company had established two hundred and thirteen bottling agencies, and hoped to considerably augment that number before the commencement of the season.

The Chairman, in moving the adoption of the report, spoke in encouraging terms of the future prospects of the Company. In order to encourage the sale of zoedone and their other aërated beverages, they had secured premises at 76 and 78 Finsbury Pavement, and at 62 Leadenhall Street, where they intended to establish buffets on the same principle as had been adopted so successfully by the Aërated Bread Company. If the results proved as satisfactory as they had reason to hope, the number of buffets would be increased as speedily as opportunities offer for doing so.

Mr. Barker also explained the *modus operandi* of the proposed addition to the Company's business, and answered several questions put to him by shareholders. Eventually the report was unanimously adopted. The retiring directors, Mr. John Brierley and Captain Ashburnham Floyd, and the auditor, Mr. W. A. Spain, were re-elected, and a vote of thanks to the chairman brought the proceedings to a termination.

Provincial Reports.

BIRMINGHAM.

ON Friday, March 19, the stock and fixtures of a chemist and druggist in conjunction with a large stock of horse and cattle medicines belonging to Mr. Henry Tatnall (formerly W. Sumner), who is discontinuing business, were sold in public auction by Messrs. Hughes and Smith at 4 and 5 Upper Mill Lane, Digbeth, Birmingham. The premises have been occupied by different chemists for the last eighty years, and the last sixteen years by Mr. Tatnall.

In the discharge of his multifarious duties the mayor of this town is the recipient of some effusive compliments, but we question whether a more peculiar tribute has fallen to his lot than that which he received whilst chairman at the annual meeting recently held in connection with one of the medical charities of the town. One of the medical staff of the institution has patented an emulsion, which he claims to be a certain cure for those distressing complaints—gout and chilblains. At the close of the meeting one of the committee, in a mocking speech, remarked that the "charity" was in such a flourishing financial position that they were about to make the mayor a presentation. Solemnly producing a bottle of the magic lotion he handed it to his worship, with a devout hope that he would not be called upon to withdraw the cork for a long time to come. The mayor, in acknowled-

ging the presentation in a facetious speech, said he had never had the gout, nor was there at present any threatening of chilblains, but still one never knew "what might happen."

At the March meeting of the Midland Counties Chemists Association, Mr. Geo. E. Perry (Vice-President) in the chair, Mr. H. W. Jones, F.C.S., F.R.M.S., read a paper on "The Identification of the Commoner Starch Granules." The author gave an account of the researches of Dragendorff and others, who had isolated special constituents of starch, although formerly the starch granule was said to consist of cellulose and of granulose—the latter striking a blue colour with iodine; several bodies were now known to be present, such as the soluble constituents giving, when isolated, various colours with iodine, as violet, reddish yellow, and pure yellow. At the present time, the microscope is the only guide to the discrimination of the various starches. Peculiar albumenoid bodies of the *Umbelliferae* are likely to be confounded with starch granules. Of the various systems of classification which have been proposed by Schleiden, Voegel, and Muter, the latter writer's appears the simplest and best for the ordinary starches. The author described the starches of canna, curcuma, maranta, potato, ginger, turmeric, calumba, bean-pea, lentil, maize, wheat, barley, rye, sago, tapioca, arum, oat, rice, and pepper, and explained the means for discriminating between them.

LIVERPOOL.

SUICIDE WITH CARBOLIC ACID.

MR. C. S. SAMUEL held an inquest on March 23 on the body of Jane Turner, who died from taking carbolic acid.

On Friday night the deceased went into the kitchen and told her husband, a working jeweller, that she had taken carbolic acid.

A doctor was called in, and she was taken to the Royal Infirmary, where remedies were applied ineffectually, and she died in half-an-hour after admission. Verdict, "Suicide whilst in a state of temporary insanity."

Mr. Henry Jackson, wholesale chemist, has been re-elected to serve on the Litherland Local Board.

Poisoned through eating hemlock.—Two children named Thomas, belonging to Briton Ferry, brother and sister, in the course of a walk in the fields, ate some hemlock root, and they were soon afterwards seized with convulsions, and a doctor was sent for. In the case of the boy, however, all remedies were unavailing, and he died; the girl is in a fair way of recovery.

On Thursday evening Mr. A. H. Mason, F.C.S., of Evans, Sons & Mason, Montreal, delivered a lecture on "Pharmacy in Canada" before the Liverpool Chemists' Association. The meeting was held in the Royal Institution, and had been eagerly looked forward to by local chemists. We had arranged for a telegraphic report of the proceedings, but up to the hour of going to press it has not been received.

THE NEW SCHOOL OF CHEMISTRY.—SIR LYON PLAYFAIR ON TECHNICAL CHEMISTRY.

THE chemical laboratories in connection with the Liverpool University College were opened on Saturday last; they are described as very complete. Towards the cost of erection handsome donations amounting to 12,000*l.* have been given by some of the well-known chemical manufacturers of the district, such as Colonel Gamble, Mr. Gossage, Mr. E. K. Muspratt, Messrs. Gaskell, Deacon & Co., and others, while Mrs. Grant, of Rock Ferry, has given 10,000*l.* towards the endowment of the chair of chemistry, and Dr. Campbell Brown has been elected to the professorship. Sir Henry Roscoe and Sir Lyon Playfair both spoke at the opening. Sir Lyon Playfair in his address spoke of the force which was inducing the erection of such schools as this in all the chief towns of the country. He said: "It is a force acting upon us now which acted upon the world long ago in the same way. Experimental laboratories for the teaching of science are not new. They existed, perhaps, in their greatest perfection in the time of the Alexandrian Universities. The Museum of Alexandria was a most remarkable institution. In that institution—which, although called a museum, was really a university of the most comprehensive kind—there were laboratories of every kind during the reign of Philadelphus. He had labora-

tories for the special study of chemistry, or of alchemy, as it was then called; he had observatories for the study of astronomy; he had engineering shops for the purpose of training the mechanician in the most advanced mechanics of the time; he had anatomical dissecting rooms; and he had even rooms for making experiments upon living animals. He had mechanical gardens, and he had zoological gardens; and he employed geographers to make sailing expeditions all over the world to fill his museum with the greatest rarities and become acquainted with the rest of the world. All this was under the same roof with the Alexandrian philosophers, who were employed in perhaps the hopeless task of trying to blend the philosophies of the East with those of the West. Geographers, geometricians, architects, mechanicians, chemists, and astronomers worked together with poets, with philosophers, and with philologists. How is it that all this got lost in the education of the middle ages, and that we are again only trying to bring science and culture upon equal terms in education? It is too long a story to tell you how it has arisen, but there was one thing in modern times—comparatively modern times, within the last two or three centuries—which caused a complete separation of science and culture. After the darkness of the middle ages, when letters and classics revived, the learned class became entirely separated from the people. They spoke and they wrote in Latin, a language "not understood of the people," and the learned class and the people got thus completely separated. It required ages to break down this wall of separation. Breaches were made in it; but the people and the learned class did not join into one for a long time. Nor would the union now have been consummated if it had not been for several important factors. The first was the expansion of nature—the widening of our knowledge of nature by maritime discoveries. It is true that it is now 400 years since Columbus sailed to the Antipodes—to that wonderful part of the world where, at that time, it was supposed that men stood with their heads downwards, and where it rained, hailed, and snowed upwards, but it took a very long time after that before there was any knowledge of what the world really was, and only in comparatively modern times, by the discoveries of Newton, came the knowledge of the relation of our world to other worlds in space. These progressive discoveries had an enormous influence upon intellect. They broke down both pedantic and ecclesiastical authority. Ecclesiastical authority had very largely put shackles upon reason. The strength of those shackles was weakened by the liberty of thought claimed by the Reformation; the Newtonian discoveries of the relation of our world to others, and of its insignificance as compared with the magnitude of creation, changed the progress of thought, and made science an indispensable part of intellectual progress; and we have at last arrived at what is called the Scientific Age. You are opening to-day your chemical laboratories, which are noble laboratories. I have gone over them, and they are most admirably constructed, with all modern improvements for teaching experimental science. You do not require to teach manufactures in such a college—they are best learned in the workshop; but what you require to do is to teach the sciences on which those manufactures are based, and then the sciences will soon become assimilated to the manufactures. The old philosopher Epictetus said a very wise thing when he told us to recollect that sheep ate grass, but it was not grass but wool which grew upon their backs; that was, that the food became assimilated and was converted into something useful in itself—that you had only to give the food which required assimilation, and the assimilation would take place and the food pass to its destined purpose without much of your aid. So it is that if you make your laboratories food for the chemical industries which surround the town you are doing the best thing you can for the industries, because it is the science you want, and the industries will take that science and apply it in their best time." Sir Lyon Playfair then gave several illustrations of the benefit which science can confer on practice. "Science has impressed upon the age in which we live a peculiar character which is producing far-reaching influences we scarcely yet understand. Steam and electricity, which have contracted space and time, have had an enormous influence upon industrial development throughout the whole world. In your own town, only consider what is the difference when you can force the rigid metal stretching over lands and going under the sea to convey your orders, to communicate your thoughts to the other end of the world. The whole

manner of commerce is altered; while the manufacturing and farming communities feel these changes much more even than commerce. The very bad trade which is now seen in England is all over the continent, is in America, and in every part of the world—what does it mean? It means that the world has not yet adapted itself to the changes which are going on on account of the changed scientific conditions. I would like to give you one or two illustrations. Take the case of agriculture. You see how that great industry—the greatest of all industries in any country—has changed in recent years through the changed condition of science. America sends over to us crops of wheat, and competes with us on such terms that we are unable to grow wheat in this country to meet the competition. How are we to meet these changes? Are we to meet them by altering altogether the crops which we formerly grew? Are we to meet them by increasing our cultivation and increasing our produce? Our produce is already vastly greater than that of our neighbours, or we should long ago have succumbed. England produces on an average 28 bushels of wheat to the acre, whilst America only produces 12; but still we are unable to compete with America. A glowing sun produces enormous crops of Indian corn. That Indian corn becomes, as my American friends tell me, incarnated in cattle, pigs, and sheep, and these come over to us, giving us the essence of Indian corn converted into another form, and we are unable, until we change our conditions, to grow our food and to grow our cattle upon terms compatible with the produce of America. The same is the case with manufactures. The local advantages which a country like this possesses in having a seaboard, the life-blood of its commerce going to all parts of the world, and having its coal and iron and lime and everything close together—all these advantages are disappearing, because cheapness of transit is so great that the raw materials become a very small factor indeed in production, and intellect applied to that production becomes the ever-increasing and important factor. It becomes the governing factor. The competition of the world has become a competition of intellect. You know this in Liverpool. How is it that you import a bulky raw material from America—cotton—that you send it to Manchester, where the science and skill of the manufacturer converts it into calico, that the manufactured article is returned to this port and goes back to America, whence we get the raw material, and that we undersell them in spite of all their protective duties? What is the reason of this? It is that intellect and skill are vastly more important than the raw material converted by its exercise into manufactures. When I used to preach this twenty years ago people did not believe it a truism at all. But what is less admitted to be a truism is this—that the time has come when the education of every individual must be adapted to the intellectual competition which is to be met. Formerly it was considered sufficient if the foreman or manager were trained to the use of these scientific powers; but now the whole masses of the people must be educated and trained to the realities of their life." He illustrated this by narrating what the Americans have done for their fisheries. "They have ships fitted up for scientific investigation. They go and examine into the conditions under which the fish thrive. They examine into the nature of their food, into the nature of their enemies, into the character of the water, into the temperature of the water in which they spawn. They try to imitate these conditions artificially. They provide artificial spawning beds, and, by studying and questioning nature, and not questioning fishermen at all, they have, in the most marvellous way, stocked the lakes and rivers of America with the best varieties of fish. And, very curiously, they have even been able to alter the habits of fish in order to suit their own interests. The cod, which is a very valuable fish on the American coast, has a habit, which it has had probably for hundreds of years, of declining to spawn in the hot waters that wash the coast of America in summer, and goes away to Newfoundland, where there is cooler water. But the ingenious Americans were determined to alter this habit of the cod, and they have done in this way. Fish are very much addicted to going back to the place where they have spawned, even going back to the same stone under which they have spawned. They have this instinct; so the Americans breed them on the coast, and the fish which have been bred in that way like to come back and spawn in the place where they were bred, and decline to accompany the other shoals of fish which go over to New-

foundland. The result is that codfish are now being caught in large quantities on the coast of America; and they are called "commission cod." Aniline, anthracene, saccharine, and other applications of chemical science were also alluded to, and Sir Lyon Playfair concluded by urging the importance of spreading education in the provinces, and not centralising it in the capital.

NEWCASTLE-UPON-TYNE.

A MARE'S NEST.

The following advertisement appears in a Newcastle-upon-Tyne newspaper of March 22:—

CITY OF NEWCASTLE-UPON-TYNE.

To Chemists and Druggists.

Several Chemists and Druggists in this City having recently sold Spirit of Nitrous Ether (*SPIRITUS ÄTHERIS NITROSI*), which was of inferior strength and quality, Notice is hereby given that unless this preparation is supplied to purchasers of the strength and quality prescribed in the British Pharmacopeia, 1885, the vendors render themselves liable to penalties under the Sale of Food and Drugs Act, 1875.

By order of the Sanitary Committee,

HILL MOTUM, Town Clerk.

Town Hall, Newcastle-upon-Tyne, 17th March, 1886.

This will keep chemists on their guard, but if the authorities wish to catch any of them they had better begin to instruct the public to ask for spirit of nitrous ether, and not for sweet spirits of nitre. In a century or so they may succeed.

NOTTINGHAM.

ASSAULT BY A CHEMIST'S ASSISTANT.—At Nottingham, on Monday, John Wills, a young man, was summoned for assaulting Elizabeth Ann Pride, wife of Mr. Pride, chemist, of Basford. Defendant had been in the employ of the latter as his assistant. It was stated that on the night in question he took three persons to his employer's shop and told Mrs. Pride that those were his witnesses with respect to some accusation that had been made against him. Some high words were used, and when complainant got up to close the door of the room it was alleged that defendant laid hold of her by the waist and threw her on one side. He also struck her in the face. Witnesses were called who denied these accusations, and said the blow was accidental. The Bench were of opinion that an assault had been committed, and fined defendant 10s.

CASE OF SUPPOSED POISONING WITH SYRUP OF SQUILLS.

ON Tuesday of this week an adjourned inquest was held at Nottingham regarding the death of a girl of five years, named Ethel B. Blasdale. At the previous meeting it came out in evidence that the deceased and other members of the family had "cold," and the mother had obtained a cough mixture for the whole of them. This mixture made the deceased ill, but the mother continued to administer the medicine to her and two or three other children. Ethel and another member of the family died—presumably poisoned by the cough mixture. Mr. Wakefield, chemist, Alfred Street South, had supplied this mixture, and gave evidence as to its contents—syrup of violets, syrup of squills, ipecacuanha wine, and oil of sweet almonds. As the case stood at the adjournment, it appeared that the mother had either carelessly administered the medicine in an overdose or that the mixture was other than it was said to be by the vendor of it.

On Tuesday, Mr. M. Browne, the coroner, in opening the proceedings, said that the matter had been a source of considerable trouble to them, but he thought it his duty to investigate it as closely as he could, and he was quite sure they would also feel that it was so serious a case that it required most careful investigation. In order to do that he and Dr. Whiteley saw Dr. Truman, the analyst, and a careful analysis of the cough mixture had been made. Mr. Wakefield, the chemist, of Alfred Street South, who sold the mixture, had done everything he could to facilitate the inquiry. He had given every assistance in furnishing the materials with which he had made up the mixture, and he did not know that any man could have done more. The inquiry, so far as it had gone, had had a very satisfactory termination, and the father

and mother of the child whose death they were considering were as innocent as Mr. Wakefield. Continuing, he said that the mixture contained syrup of violets, syrup of squill, ipecacuanha wine, and oil of sweet almonds. A very strong dose of oil of almonds, which contained prussic acid, would cause death, but the analysis pointed to the absence of that, and they would find that that had been an innocent agent in the case. As far as the symptoms were concerned, it appeared from what had been observed by the medical men, that the heart had been strongly affected. There were only one or two ingredients which were likely to produce that action. One was digitalis or common fox-glove, and the other squill. He said, further, that squill varies in strength, and on that account there was room for a great deal of difference in the strength of the squill preparation supplied to Mr. Wakefield by a wholesale druggist, and which he afterwards made into syrup. The medical men came to the opinion that there were only two things they were aware of that would produce the symptoms observed, viz., squill and digitalis. The first was much the cheapest, so that a wholesale druggist would have little motive in supplying digitalis in its stead. He was not aware that there was any particular standard for the preparation of squill sold to the retail druggist. He had to depend upon the care with which it was prepared by the wholesale druggist; but they would find that there had been an extra strength of squill in the cough mixture given in that case. He (the Coroner) had been close upon fifty years attending to matters of that kind, and he had always been taught to consider that a quantity of syrup of squill might be given to children without the slightest danger; but it would turn out from the examination that had been made that there had been a poisonous quantity of it in that case.

Dr. E. B. Truman, the analyst for the borough, gave the result of a number of experiments he had made by injecting extracts of the mixture of syrup of squill under the skin of frogs, and he said he found that Mr. Wakefield's prescriptions contained very strong heart poison, agreeing in its essential characteristics with digitalis.

Dr. Whiteley, the medical officer of health, agreed, and he was satisfied that the cause of death was some poison similar in action to digitalis.

The jury returned a verdict of "Death by misadventure," and the Coroner told Mr. Wakefield that everybody was satisfied that he was perfectly innocent in having prepared the mixture.

WIGAN.

Poisoned by Bisulphide of Carbon.—Mr. Rowbottom, Coroner, held an inquest on March 16, on the body of John Smith, aged 64, shoemaker, who died from the effects of drinking some bisulphide of carbon. Deceased had been drinking for some days, and it was supposed drank the poison in mistake for gin, which he kept in a similar bottle, but, after hearing the evidence, the jury returned a verdict of "Suicide whilst in a state of temporary insanity."—Dr. Berry, who made the post-mortem, said he had sent to the chemist's where the poison was purchased, but the chemist could not remember the quantity or when it was got. It was sold as an article used for trade, and the chemist was not required to register the names of the purchasers. Witness, however, thought that chemists ought to keep a register of all poisons sold.

SCOTLAND.

ABERDEEN.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—On Friday evening, March 19, Dr. Beveridge delivered a lecture to the above association in the rooms, 21 Bridge Street, on "German Watering Places." Mr. Sim occupied the chair, and there was a large attendance. Dr. Beveridge commenced his lecture by describing the scenery on the Rhine, and he gave a brief account of the life led at watering-places. He concluded with an account of the chemical composition of the mineral waters and the enormous trade that is done in them. The lecture, which was illustrated by a large map of the Rhine, was exceedingly enjoyed by the audience. On the motion of Mr. Sim a hearty vote of thanks was awarded to the lecturer.

EDINBURGH.

The numerous friends whom Mr. James Mackay (of Messrs. John Mackay & Co.) has in the North will regret to learn that he has been laid aside from business, through illness, for about two months. He is now recovering strength.

On dit that some jocular person has nominated all the members of the "effaced" council of the North British Branch as candidates for the London Council. They all felt flattered until they compared notes. It is understood that they are not all going to accept nomination.

Dr. Berry Hart has been elected lecturer in Midwifery and Diseases of Women and Children to the School of Medicine, Surgeons' Hall, rendered vacant by the death of Dr. Angus Macdonald. Dr. Hart was a distinguished student in the University of Edinburgh, and is joint author of a "Text Book of Gynaecology."

PURCHASING POISON FOR SUICIDE.—A clerk named James Cairns died at the Chalmers' Hospital last week from laudanum poisoning. His wife stated that he told her he had drunk eightpence worth of laudanum, which he had bought in small quantities at different shops. He had been suffering lately from lowness of spirits, owing to scarcity of employment.

HUMOUR AT THE CHEMIST'S EXPENSE.—The Edinburgh Scots Law Society gave an entertainment on Saturday last in the Queen Street Hall, in presence of a crowded audience specially invited. This was the representation of a trial by jury, which was conducted with becoming gravity, and due attention to the details of court procedure. The action selected for trial was one at the instance of "Josephine Fisher, spinster, only daughter of, and residing with, Timothy Fisher, fishcurer, Hareless Cottage, near Peterhead," who sought to obtain 1,000*l.* damages from Mr. Moses Green, chemist, 39 Bald Street, Glasgow. The ground of the action was that the defendant had sold her a bottle of "Elixir Hair Lotion," by the use of which she had lost her hair. She averred upon record—which had been printed and circulated among the audience—that "by the loss of her hair, she, who had the reputation of being possessed of much natural beauty and great attractions, had suffered permanent disfigurement; and that in consequence of the injuries occasioned to her health and appearance, her intended husband, James Squeers, potato merchant, Halehouse, Fraserburgh, considered himself justified in breaking off his engagement with her." The defence was that "the alleged loss sustained by the pursuer was due either to her negligent observance of the conditions for the use of the lotion, or to other causes for which he was not responsible." A jury having been ballotted for, and other customary formalities observed, Mr. Gibson, junior counsel for the pursuer, in a speech remarkable for its succinctness, opened the case for the pursuer. That individual was then put into the witness-box, and her appearance was the signal for an outburst of laughter. The member who impersonated the bald-pated young lady was exceedingly happy in his get-up, and his assumption of the part was spirited and effective. The pursuer's evidence was to the effect that she had applied the lotion to her hair four times, with the result that she became ill, suffered much pain, and had the mortification to behold her hair coming out in handfuls, and her head becoming incurably bald. Deeming it necessary for the preservation of her beauty, and of her beau, to take measures to restore her health and hair, she proceeded to France to consult an eminent authority on hair diseases. Great was her grief and dismay when that functionary told her that her affliction was incurable, and the ultimate loss of her lover added to her sorrow. To the judge's inquiry as to the fine head of hair she seemed to possess, she mournfully replied that, in order to make a presentable appearance, she had been compelled to wear a wig, for which she had paid 10*s.* In cross-examination she admitted that she had a partiality for fish dinners. Squeers, the displeased lover, was next put in the witness-box. He was honest enough to admit that he broke off his engagement with the pursuer because of her disfigurement. The pursuer's father deposed that his daughter's illness and her travels seeking for health and hair had cost him 300*l.* Medical testimony was adduced to prove that the damage to the scalp was entirely due to the deleterious hair lotion, the ingredients of which included methylated spirits,

lavender water, ginger cordial, arsenic, and petroleum. The evidence of the defender was directed to show that the lotion was harmless, and fully warranted the defender's advertisements in regard to it: that the lady who had now gained the attentions of Mr. Squeers had used the lotion with beneficial results, and that the pursuer had injured her health and hair by an indulgence in "ling." Council having addressed the jury, the judge summed up in a speech which was characterised by excellent humour. He pointed out that the pursuer had lost what the Apostle Paul called the "glory and crown" of a woman: and though the Apostle was not an authority on the law of Scotland, yet the jury might consider his views on the subject, that the pursuer's loss of charms rendered her a bankrupt in beauty and attraction. On the other hand, he pointed out, in mitigation of damages, that by being bald she was saved much worry in hair-dressing. Further, by wearing a wig she could change the colour of her hair at pleasure, which was some compensation to a woman. The Judge's charge was received with great applause. The verdict of the jury was for the pursuer, the damages being assessed at 24*l*. The trial, which went off smoothly, and with satisfaction, was regarded as a great success.

GLASGOW.

Speaking on the dulness of trade in drugs, a druggist here recently expressed the opinion that "if people had more money there would be more sickness." This suggestion may be useful to public health officials.

A herbalist, William Arbuckle, who was found suffering from the effects of poison in his shop at Market Street, Glasgow, afterwards died in the Royal Infirmary. It has not been ascertained what induced him to take the drug which produced his death.

Notwithstanding the lucid statements which have been made on both sides from time to time, outsiders here are still asking what the domestic brawl in the Society is all about—some people are so obtuse. It is wondered if "Scotus" had belonged to the umquhile Council of the Branch and had had to appoint a secretary, would he have preferred one who could not "evidently be relied on to discharge his duties strictly in the spirit of his appointment." We think not.

It is rumoured that all the members of the late Council of the N.B. Branch have been nominated for election as members of the Pharmaceutical Council. If a sufficient number of these gentlemen will only consent to become candidates, and if the English voters will give them their support, the present dispute may be settled amicably, the Pharmaceutical Society saved, and evening meetings resumed in York Place, and who knows, possibly even Council meetings may be held there if no legal obstacle exists.

MACDUFF.

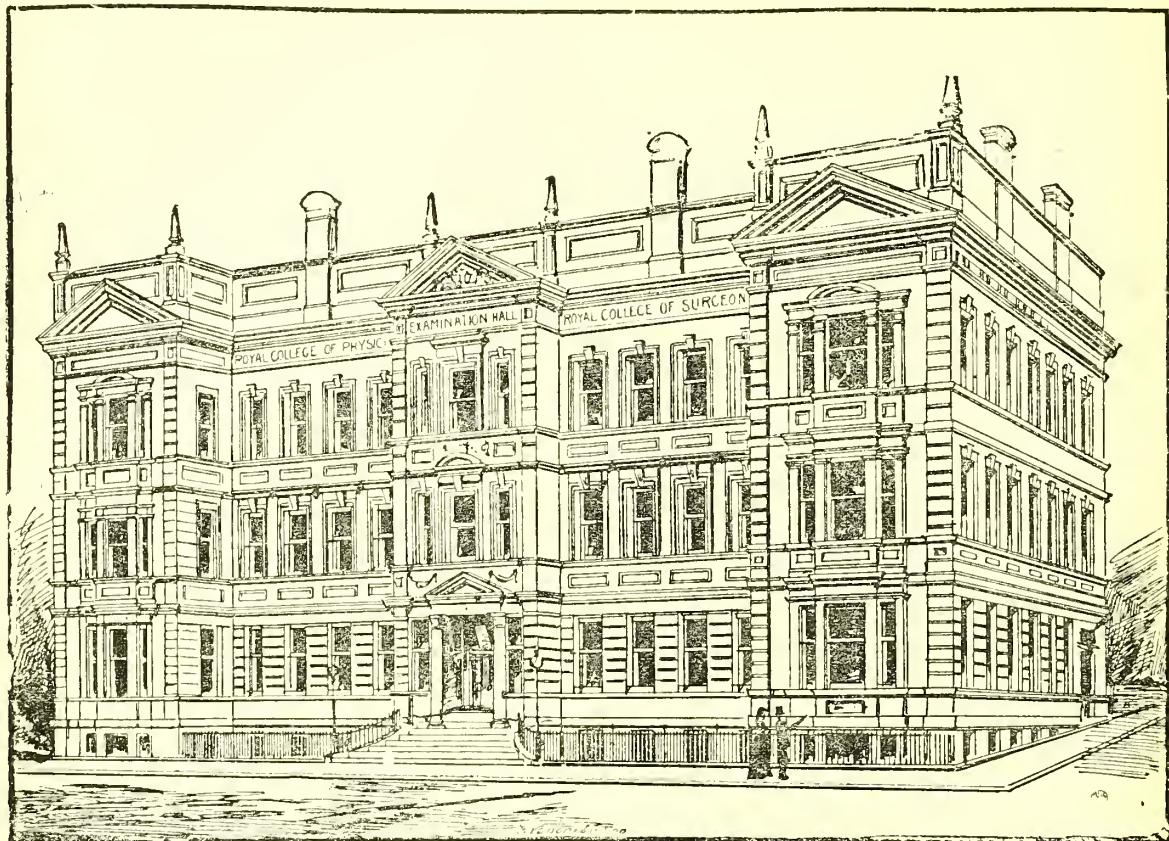
On March 19, a labourer, named Russell, residing in Macduff, attempted to commit suicide by swallowing vermin poison. Immediately after it became known Dr. Hitchcock was sent for and gave him an emetic, which brought him out of danger. Russell was insane, and has since been removed to an asylum.

Obituary.

GOODALL.—Mr. Henry Goodall, chemist, of St. Peter's Street, Derby, died on Sunday at an advanced age. Mr. Goodall was one of the oldest tradesmen of Derby. He was formerly a member of the Derby Board of Guardians, and he represented Babington Ward in the Town Council from November, 1877, until November, 1884, when he was defeated by Mr. Pratt. The deceased gentleman was a shrewd man of business, and in public affairs a rigid economist. He was a Conservative in politics.

KEMP.—On March 20, John Botwright Kemp, chemist and druggist, late of Junction Road, Upper Holloway, aged 55.

URWICK.—On March 23, after a few days' illness, at New Quay, Cornwall, William Urwick, M.R.C.S.E. and L.S.A., only surviving son of W. W. Urwick, 60 St. George's Road, Pimlico, London.



NEW EXAMINATION HALL FOR THE
ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

ON Wednesday of this week the Royal Colleges, or that portion of them who were fortunate in securing tickets, held high holiday to celebrate the laying of the foundation-stone of their new Examination Hall by Her Majesty the Queen. The ceremony is in many respects an historical event. The wise ones say that it is a proof that the Queen is returning to public life; to those directly interested it means that they are under royal favour, and that the Examination Hall will be to them a memorial of a union, which might have taken place a hundred years ago; or it may be taken, as the *Times* takes it, as "a sign of healthy life [due to] the combination which has at last been effected between the Colleges of Physicians and Surgeons for examinational purposes, and for the elevation of professional education."

As to the incidents of Wednesday's ceremony, we need only say that many prominent public men took part in it, and all the office-bearers and officials of the colleges, some of whom had the honour of being presented to Her Majesty by Sir William Jenner. Pharmacy was not represented.

The new hall is to be situated on the Thames Embankment, at the foot of Savoy Hill.

We are indebted to the *Pall Mall Gazette* for the use of the engraving which we here reproduce. The building has been designed by Mr. Stephen Salter, F.R.I.B.A., of 28, Woburn Place. The design is in the Italian style, and the structure will be of red brick and Portland stone. There will be three floors and basement, which will afford immense facilities, so far as space is concerned, for the conjoint examinations. Apart from caretaker's apartments, museums, offices, rooms, and other provision for the permanent officials, there will be thirteen apartments exclusively for examination purposes. The largest of them will be two magnificent halls (100 ft. x 30 ft.), situated on the first and second floors.

These rooms will be made so that each can be divided into two if required. The first floor will also contain two examination rooms, 60 x 21 ft. each, and the same on the second. The chemical and anatomical laboratories (two of each) will be on the third floor. There will be numerous retiring-rooms for examiners, and in this respect candidates will not be forgotten. The building will be provided with entrances from Savoy Place, Savoy Street, and Savoy Hill. There will be three staircases, and at both sides of the building lifts are to be provided. The foundation-stone is at the south end of the east wing, and is of white Balmoral granite. The building will cost about 30,000*l.*

Foreign and Colonial.

NEW FIRMS.—*Oscar Mielertz*, Luebeck, wholesale druggist and manufacturer of mineral waters. *Richard Mauke, Mittweida*, Germany, drugs and drysalteries. *Paul Schieritz & Co.*, Dittersbach, Germany, soap manufacturer. *Mirsoeff Brothers & Co.*, Tiflis (Caucasus), capital 214,000*l.*, for producing and dealing in naphtha.

COCAINE IN 1857.—It is generally supposed that Niemann, a German chemist, was the first to discover cocaine, having isolated it as early as 1859. Dr. Clemente Torretti, late Professor of Chemistry and Pharmacologia at the University of La Paz (Bolivia), now writes to a South American journal that he has found irrefutable proofs showing that in 1857 a Mr. Enrique Pizzi, his (Dr. Torretti's) predecessor in La Paz, succeeded in isolating the alkaloid of the coca-leaf, having been encouraged to make experiments on the coca leaves by Mr. Tschudy, the celebrated Austrian explorer, and Dr. Aquilie Ried, a well-known personage in Valparaiso. Dr. Torretti adds that his assertion is not founded on documentary evidence only, but that he has actually found specimens of the cocaine manufactured by Pizzi in 1857.

A MODEL-ASYLUM.¹

BY A MAD APOTHECARY.

THE same roving disposition which took me four times to the Antipodes has at last landed me in this haven of rest, and a mania for scribbling and boring my fellow-men with my adventures is again developing itself. Knowing, however, your wish to represent all sorts and conditions of chemists and druggists, I must beg of you again to indulge this little weakness and burden your pages once more with a few of my experiences. The modern novelist, Charles Reade to wit, has made us all familiar with the "mad-doctor," but who has ever heard of the "mad-apothecary," or the "mad-chemist"? yet here am I, inasmuch as this is a lunatic asylum, a "mad-dispenser." Are we not all mad? Is it not but a matter of degree? An intimate association with lunatics and their manias leads one to look carefully around, and to recognise in the favourite hobbies and weaknesses of friends symptoms of insanity, and also to analyse one's own mind and find there many little things, which, if strongly developed, might surely qualify us for residence in such an institution as this. Now to explain how I came here. Being somewhat home-sick and tired of sea-going, I one day saw an advertisement for an Asylum dispenser, and, thinking rightly that this might lead to some novel experiences, I forthwith sent in my testimonials, and in due time received the appointment. Most wretched was the day when I set off from London to a lonely junction on the London, Brighton, and South Coast Railway, and luckily found there a cab which drove me through fog and rain to a little village some three miles off, amid the Surrey Hills, and then entered the domain of the model asylum. My first impressions were hardly favourable on that dreary February day. Oh, this English climate! Could we but have England under Australian skies! but then, who would leave it? This Asylum would under these conditions be Elysium, since it is most beautifully situated—some 450 feet above the sea-level, commanding splendid views of hill and dale, upon an estate of over 150 acres. This estate is prettily laid out, the work of planting, levelling, and turfing still going on, most of it being done by patient-labour. The style of building is pretty, a little Queen Anne, the façade being surmounted in the centre by a clock tower flanked on either side by wings, forming on the one side the medical superintendent's house, and on the other the apartments of the assistant medical officers, sub-officers, as well as the committee rooms. The wards are built on the block system, and branch off from the front in a half-circle, on the right the male and on the left the female sections, with the church in the centre. Behind that come the theatre and recreation-hall, kitchens, store-rooms, laundries, and water-tower, altogether forming a magnificent group of buildings, deservedly styled the "Model Asylum." The peculiarity of this block system is that each ward is separate, but may be reached and entered, by means of spacious corridors, without either going outside or passing through any other ward.

The dispensary or surgery is as nearly in the centre as possible, being entered from the corridor which connects the male and female wards. It is large, airy, and neatly fitted up, the supply of drugs being all-sufficient, together with a very good set of surgical appliances. Attached to it is a little consulting-room for the doctors, and in a short time we shall have built above it a photographic studio with all the latest improvements. Having had a little experience in photography, I look forward to this being done, as it is intended to photograph all patients as admitted and when discharged. Decidedly it will be photography under difficulties, specially in violent cases, when focussing will be an impossibility. Probably we shall have some marks on the floor, arranged at the proper distance for our lens, which will be a reticule one. Of course, as in hospitals, we keep a stock of medicines from the Asylum Pharmacopoeia, made up; also solutions of most of the soluble salts, and the dispensing may be done during the afternoon. The morning is occupied in answering letters from the friends of patients, in entering certificates in the case-books, and keeping up the stock. The surgeons go round the wards in the morning, and on coming to the surgery write out their prescriptions in a book and show the dispenser what medicines to repeat of the bottles returned from the wards. Our labels being large, the prescription is spied upon every bottle, so that it is ready for the doctor's

reference in the wards, and is very convenient in dispensing, a number of repeats, saving a lot of trouble. Extraordinary doses of the sedative drugs is very noticeable, such as Indian hemp, conium, henbane, chloral, and the bromides, and at first one pauses in dispensing. Also of aperient medicine, croton oil being sometimes the only thing it is possible to give, and that on sugar.

Our three medical men have their duties nicely apportioned, one overlooking the whole establishment, another taking the female wards, and the third looking after the masculine maniacs. In case of death a post-mortem is always held, unless objected to by the deceased's friends. It is my privilege to attend such examinations and take notes. The unpleasantness soon wore off before a genuine curiosity to fathom the mysteries of this body so wonderfully and fearfully made. Of course the brain is the most interesting organ, and really one may see things which it would be impossible to find anywhere but in an asylum. The mortuary is large, well ventilated, fitted with every convenience, and all is done with the most scrupulous respect for the poor bodies. Apropos of the mortuary, there is a prettily laid-out God's-acre at the back of the estate, with chapel built to match the style of the other buildings.

The wards are palatial, and if at any time there should be any danger of my becoming a pauper, I think I should develop some one of my hobbies to a mania and my consequent advantage in being removed from the workhouse to the asylum. The female wards, presided over by the head-nurse, with some fifty or more nurses, are nicely furnished, with curtained windows and little flower-stands here and there. Pianos are also to be found in these wards, with other lady-like amusements, and the patients are employed during the day in needlework, &c., the better cases assisting in the domestic work of the establishment. The uniform of the nurses is extremely neat, being navy-blue faced with red, and stripes denoting grade, a pretty white cap giving a finishing touch. The male wards on the other side are kept in order by about forty-six attendants, who wear a navy-blue uniform and are under a head attendant, who has a house in the institution. During the day the men are engaged in farm-work or gardening, and many follow their trades, such as bootmaking, tailoring, &c., and return at night and at meal-times to their almost sumptuously furnished apartments. Indeed, the wards somewhat remind me of the saloon of an ocean-going steamer, only nicer, with bagatelle-board in this, billiard-table in that, and chess, dominoes, and every innocent amusement in the others. Each ward has its daily papers, and, what with the flowers, bird-cages, statuettes, and little odds and ends tastefully laid about, everything seems to be done to elevate the minds of the benighted inmates; and I am told that these nice surroundings quieten a man very quickly, so much so that restraint has actually never been used. There are two wards, one on either side, fitted with every convenience for the sick, with single rooms for patients who are dying. The padded rooms also deserve notice. These are lined with indiarubber and stuffed with horse-hair, so that a man may knock himself about in them as much as he likes with no fear of his hurting himself. A cottage hospital has been built on the grounds for sixteen patients in case of infectious disease, but has not yet been used for such a purpose. The food is supplied regularly, and is of the best, and every inmate has to take a bath and have a change of clothing once a week. Nor is the body alone ministered to, for twice a week the band plays in the hall, and every Friday some kind of entertainment is provided. We have a large recreation-hall capable of holding 1,000 or more people, with stage and effects surpassing many a provincial theatre. Dances are given every alternate week, and are most enjoyable affairs, the staff dancing with the patients. When one may dance with such an exalted personage as the "Princess Beatrice," and chat during the interval with "Marquises" and other *pseudo*-aristocrats, an asylum ball is not to be despised. During the evening cake and coffee is served round to all, and this puts them in a good humour with everyone. At a representation of "Bombastes Furioso," preceded by a farce, the fact of being within the walls of an asylum was forgotten, for order was better maintained than in the majority of theatres, and the performance was above the average of amateur efforts. The band, composed mostly of old soldiers, is an especial feature, and at the present moment I hear sweet music proceeding from the hall.

A resident chaplain looks after our spiritual welfare. His pretty villa stands on a beautiful site in the grounds, and he holds a service in the church every morning at eight and twice on Sundays, the sermons of course being simple and suited to the minds of the listeners. The church is very pretty, in Early English style, with a superb organ and a talented organist. In case of fire hydrants are conveniently placed all over the building, and an efficient fire brigade is weekly drilled in their duties by a member of the London Fire Brigade, who devotes the whole of his time to keeping his department in working order.

In the summer, to which I am looking forward, we are promised cricket and lawn tennis—in fact, I hear that our club is a very strong one, and holds its own against many school and town clubs. As I said before, the estate covers over 150 acres, and on it there is a model farm, with about seventy pigs together with cows and poultry. A better class of patients live at the farmstead and work on the land, as also do those at the gardener's house, near which are some fine forcing-houses, from which, no doubt, many of the hyacinths and other pretty flowers emanate, besides the more useful products which are met with on the mess-tables.

The staff and attendants have a debating club, and I anticipate some good debates there. In a word, we are a little world in ourselves, making our own bread and drawing our own water. The water-tower is over 100 feet high, and the water is pumped from a spring on the estate some distance away. The whole place is warmed with hot water, giving employment to a resident engineer and staff. If any of my fellow-chemists feel at all weak in the upper storey, I would advise them at once to become incarcerated in a lunatic asylum and turn mad-apothecary. It is scarcely necessary to mention the institution to which the above refers, since it is generally known as the "Model Asylum." However, to prevent mistakes, I may conclude by saying it is the Surrey County Asylum, Cane Hill, over which Dr. Moody exercises so masterly control.

MISCELLANEOUS PERFUMES.

(Continued.)

VOLUNTEER'S GARLAND.

S.V.R.	20 oz.	Extract orris ..	20 oz.
Ol. neroli	4 "	„ jasmine ..	7 "
„ lavand. ang.	4 "	„ cassie ..	7 "
„ bergamotte	4 "	„ violet ..	10 "
„ Freuch geranium 60 minims		„ musk ..	2 "
„ cloves	10 "	„ civet ..	½ "
Otto rose	50 "	„ ambergris ..	½ "

HOLY BASIL.

Extract tonquin	40 oz.	Extract cassie ..	20 oz.
„ vanilla	50 "	„ jasmine ..	20 "
„ geranium	40 "	„ tuberose ..	20 "
S.V.R.	20 "	„ rose ..	25 "
Extract storax	18 "	Ol. citron ..	2 drach.
„ musk	4 "	„ bergamotte ..	1 "
„ orange	20 "	Otto rose ..	45 minims

RESEDA.

Extract orris	Oz.	Extract violet ..	Oz.
„ orange	50	„ storax ..	6
„ cassie	90	„ musk ..	4
„ jasmine	40	Aq. flor. aur. ..	10
„ rose	40	„ rosa ..	10

LEBANON CEDAR-WOOD, FOR THE HANDKERCHIEF.

Oil cedar .. ..	..	..	..	..	..	1
S.V.R. .. ..	..	..	..	..	..	25
Rose triple .. ..	..	..	..	..	..	6

HONEYSUCKLE.

Extract rose	20 oz.	Extract storax ..	4 oz.
„ violet	20 "	„ musk ..	1 ..
„ tuberose	20 "	Ol. nero'i	12 minims
„ cassie	20 "	„ almonds ..	7 "
„ vanilla	7 "	Otto rose	10 "

HOVENIA, ESSENCE OF.

S.V.R.	40 oz.	Ol. neroli	10 minimis
Ess. lemon	½ "	Otto rose	40 "
Ol. French geranium 30 minims		Aq. rosa	10 oz.
„ cloves	30 "	Extract musk	1 "

WHITE LILAC, ESSENCE OF.

Extract tuberose	20 oz.	Ol. almonds	5 minimis
„ rose	10 "	Extract civet	¾ oz.
„ orange	7 "		

SWEET PEA, ESSENCE OF.

Extract orange	10 oz.	Extract vanilla	2 oz.
„ tuberose	13 "	„ storax	1 "
„ rose	10 "	Otto rose	7 minimis
„ violet	7 "		

CLOVE PINK, ESSENCE OF.

Rose triple	7 oz.	Extract vanilla	3 oz.
Extract rose	10 "	„ musk	½ "
„ orange	5 "	Ol. cloves	13 minimis
„ cassie	5 "		

Moss Rose.

Extract rose	Oz.	Oz.	
„ orange	40	Rose triple	20
„ violet	20	Extract musk	4
„ jasmine	20	„ ambergris	3

TEA ROSE, ESSENCE OF.

Rose triple	Oz.	Oz.	
Extract rose	15	Extract neroli	5
„ geranium	25	„ orris	5
„ santal	20	„ violet	10
„ musk	10	„ storax	3

EXTRAIT D'AMBRE, FOR THE HANDKERCHIEF.

Rose triple	Oz.	Oz.	
Extract ambergris	20	Extract vanilla	2
„ musk	5	Aq. rosa	7

KEW GARDENS BOUQUET.

Extract neroli	Oz.	Oz.	
„ cassie	10	Extract rose	10
„ tuberose	10	„ geranium	10
„ jasmine	10	„ musk	3
„ violet	10	„ civet	1

YELLOW ROSES.

Rose triple	Oz.	Oz.	
Extract rose	16	Extract violet	10
„ tonquin	30	„ verbena	4
„ tuberose	5	„ musk	3

FLEUR D'ITALIE.

Extract rose	Oz.	Oz.	
„ jasmin	40	Extract tuberose	10
„ violet	20	Rose triple	16
„ cassie	20	Extract musk	3
„ rose	10	„ ambergris	1

NAVAL BOUQUET.

Rose triple	Oz.	Oz.	
Extract rose	8	Extract santal	6
„ violet	10	„ vitivert	6
„ cassie	10	„ patchouly	4
„ rose	10	„ verbena	2

OXFORD AND CAMBRIDGE BOUQUET.

Rose triple	10 oz.	Extract geranium	4 oz.
Extract jasmine	10 "	„ rose	10 "
„ tuberose	10 "	„ patchouly	3 "
„ cassie	10 "	„ storax	1 "
„ vanilla	5 "	Ess. bergamotte	60 minims
„ santal	5 "	„ lemon	40 "
„ violet	20 "	Extract musk	3 oz.

HISTORY OF NAMES.

THE whole of the materials for the following articles are taken from the "New English Dictionary on Historical Principles," projected by the Philological Society and edited by its President, James A. H. Murray, LL.D., of Mill Hill.

Only two parts of this magnificent work have yet been published, and only the middle of the letter B has been reached; but these two parts sufficiently testify to the wonderful store of learning and interest which will be collated in its pages. In the paragraphs which follow we have but skimmed the surface, picking up a few items specially bearing upon the pharmaceutical occupation, and annotating them in other than dictionary form; these, however, will suggest how completely the wide range of our language, with all its technical branches and in all its varying history, has been searched and sifted. We do not propose to "review" the work here, but we may add with confidence that it will not be long before it will be considered essential that every public library, and particularly every scientific library, should include this series of volumes among its books of reference.

Instead of attempting to group our notes gleaned from this dictionary under general subjects, we have thought it would be more convenient to follow the alphabetical arrangement, notwithstanding the somewhat disconnected effect produced on the reader. We begin with—

ABDOMEN, which is adopted from the same word in Latin. Its origin is doubtful. Two probable sources have been suggested—namely, *abd-ēre*, to stow away, conceal, cover; and from *adeps*, *adipem*, as if from *adipomen*, representing the fat deposited round the belly; the fleshy part of the belly or paunch. The first appearance of the word in English is found in Copland's translation of "Galén's Terapeutike," from the French (1541), where "the membrane yt is stretched vnder labdomen" [=l'abdomen], is referred to.

ABRACADABRA is a word of unknown origin. It occurs first in a poem by Q. Severus Sammonicus. It was a cabalistic word, used as a charm, and believed to have the power, when written in a triangular arrangement and worn round the neck, to cure agues. T. A. G. Balfour (1860) has pointed out that the combination "abra," which is twice repeated in this word, is composed of the initials of the four Hebrew words *Ab*, *Ben*, *Ruach*, *Acdosch*, signifying Father, Son, and Holy Spirit.

ABSCESS is from the Latin *abscidere*, and means a going away. It is used as a medical term by Celsus, and first occurs in English in Traheron's translation of *Vigo's Chirurg.*, where in an interpretation of "Strange Wordes," he gives, "Aposteme. . . . In latyne it is called abscissus."

ABSTRACT. The editor of the Dictionary has not included the new American pharmacopial term "abstract," as applied to the new form of extract, in giving the various meanings of this word; but he quotes from Johnson a definition which shows how accurate a term it is: "A smaller quantity containing the virtue or power of a greater."

ACACIA is the same word in Latin and Greek, and is probably traceable to *ake*, a point, in reference to its thorns. The word *akakia* in the Greek also signifies "guilelessness."

ACETIC, and the various chemical words branching from it, are, of course, derived from the Latin *acētum*, which comes from the verb *acēre*, to be sour. "Acetic" is traced to Henry's "Epitome of Chemistry" (1808), but other derivations from *acētum* are of quite ancient use in English. *Acētulum*, the Roman vinegar cup, which became the name of a measure equal to about 2½ fluid oz., is found mentioned in "Trevisa" (1398), and in Turner's "Herbal" (1551), it appears anglicised into "acetable." *Acetose* is also an old English word. Elyot's "Castel of Helth" (1533) says: "With sugar and yneger is made Sirupe Acetose." "Acetarr," mentioned by Lckeram (1612), was "a salad of smal hearbes," which was eaten with vinegar.

ACIE has an interesting history. It has descended from the Saxon *acean*, which in the thirteenth century becomes *ken*, and afterwards *ake*. Formerly, and until about the year 1700, the verb was pronounced *ake* and the substantive *itch*. This is analogous to the similar Saxon words—"make, match"; "bake, batch"; "wake, watch"; "break,

breach": "speak, speech"; "stick, stitch." Dr. Johnson assisted the confusion by representing the word to be derived from the Greek *aechos* (with which it has no connection), and declared that both the verb and the substantive would be "more grammatically written 'ache'." The result is that, while the spelling *ake* has become obsolete, we still use the word, but spell it according to the obsolete pronunciation, *ache*.

ACHOR, from the Greek *achor*, scald, scurf, is the medical term for the disease "scald-head."

ACID, *acidus*, like *acetum*, is derived from *acēre*, to be sour. The following are some curious quotations illustrating the early use of the word:—1626, Bacon, "It [sorel] is a cold and acid herb." 1679, *Phil. Trans.*, "These crystals are pure vitriol, acid-austere"; 1696, Phillips, "Acid in Chymistry, that sharp Salt, or that potent and dissolving Fire which is in all mix'd Bodies and gives 'em being. Of Acids, Vitriol is the chiefest, Sea-salt next to that." 1712, Pomet's "Hist. Drugs," "The Edges or Points of the Acids, penetrate the Gustatory Nerve." 1727, Newton, "In decompounding sulphur we get an Acid salt." And again, "The particles of Acids are of a size grosser than those of water." 1747, Berkeley, "What the chemists say of pure acids being never found alone might as well be said of pure fire." In the seventeenth and eighteenth centuries so-called cold mineral waters (opposed to the Therme) were called *acidulae* on account of their sharp and pungent taste, then considered acid.

ACNE, the skin disease, is supposed to be a corruption of the Greek *acme*, a point.

ACONITE is *aconitum* in Latin and *aeoniton* in Greek, but the origin of those words is uncertain. Among the quotations given by Dr. Murray it is rather hard on the *Daily News* to perpetuate the following:—"She and the deceased had eaten the root of a plant named wolf's-bane, the active poison of which is acouite."

ACOPON is an obsolete medical term, taken literally from the Greek, for a soothing salve. It may be useful for some ointment maker in search of a title.

ADAM'S APPLE is a name given to the fruit of a variety of the lime or Bergamotte (*Citrus Limetta*) on account of some fancied resemblance to the marks of teeth on its surface, supposed to have been first caused by Adam's original sin.

ADAM'S FLANNEL is the Great Mullein (*Verbascum Thapsus*).

ADAM'S NEEDLE is a popular name for the Yuccas (plants allied to aloes), and sometimes for the Shepherd's needle (*Scandix pecten Veneris*).

ADEPS seems to have made an effort at one time to get a footing in the English language. Salmon, an author dated 1683, writes, "If you desire the Adeps rather than the spirit."

ADEPT, from the Latin *adeptus*, having acquired, was first used by the alchemists to indicate those who had attained the great secret.

ADVERTISE is traced back to the early part of the fifteenth century; but in those times it was used in the sense of advert as well as in that of inform. In the seventeenth and eighteenth centuries it was uniformly pronounced with the accent on the middle syllable, *advertise*; subsequently, *advertise* became universal; the present tendency, says Dr. Murray (in commercial usage, at least), is to say *advertise*, apparently after the verbs in *ize*.

ETHIOPIAN MINERAL is given as an obsolete word. Phillips (1706) describes it as "a medicine made by Imbodying equal parts of running Quicksilver and Flower of Brimstone, and then Defragrating or Burning off the Mixture in a Crucible." [Attfield says the name is probably an allusion to the colour, being similar to that of the *Ethiop*.]

AFFINITY works its way into English through French, from the Latin *ad finem*, meaning "bordering upon," "touching the border."

AGUE is a variation of acute. It applies to an acute as distinguished from a chronic fever, *fièvre aigue*. Ague-tree is an obsolete name for the sassafras.

ALCHEMY has appeared in numerous spellings in English as alkamy, alknamy, alcconomy, alcanamy, alkamy, alchumie, &c. In French as alquimie, in Spanish as alquimia. All are derived from the Arabic *al-kimia*, *al* the, *kimia*, apparently says Dr. Murray from the Greek *chemia*, or *chemeia*, found (c. 300) in the Decree of Diocletian against "the old writings of the Egyptians, which treat of the *chemia* (transmutation) of gold and silver." This derivation connects the word with the Greek form of the native name of Egypt, *khmi*, meaning "black earth" (in contrast to desert sand). But Mahn ("Etym. Unt." 69) concludes, after an elaborate investigation, that the Greek *chumeia* (from *chumos*, juice), having reference to pharmaceutical chemistry, or the expression of juices, was the original of the word, thus justifying the spelling chymistry. If so, it is likely that the Arabs adopted the term from the Alexandrines, and from them it returned into Europe by way of Spain.

ALCOHOL comes from the Arabic *al-Kohl*, the collyrium, the fine powder used to stain the eyelids, from *kahala*, stain, paint. See Ezekiel, xxiii. 40. It appeared in English and other modern languages in the sixteenth century. The first use of the word was for the fine powder of the ore of antimony, the trisulphide, which was used for staining the eyelids. Bacon (1626) says: "The Turkes have a Black Powder made of a Mineral called Alcohole; whieh, with a fine long Pencil they lay under their Eyelids." From this origin very fine impalpable powders, especially such as were obtained by sublimation, came to be called alcohols. Sir H. Davy, in 1812, refers to the alcohol of sulphur. This use of the term brought in the seventeenth century the idea of anything distilled, and was particularly applied to the alcohol of wine, and this has become the sole meaning. In the word *alyuioum*, which describes a lead ore found in Cornwall, and having the appearance of antimony, the original meaning of alcohol, with which it is allied, is partially retained. This mineral is used by potters to give a green glaze to earthenware.

ALDEHYDE is an abbreviation of the words "alcohol dehydrogenatum."

ALEMATIC reaches us from the Arabic *al*, the, and *ambig*, still. Its characteristic was that there was a head or cap to the alembic proper over the cucurbit or gourd-shaped vessel which contained the substance to be distilled, and this head had a beak which conveyed the vapours to the receiver.

ALEMBROTH was the old alchemical name for the double chloride of mercury and ammonium ($2(\text{NH}_3\text{Cl} \cdot \text{HgCl}) + \text{H}_2\text{O}$), believed to be a universal solvent. Its name is said to be of Chaldee origin, and to signify "the key of art."

ALEXIPHARMIC was a word quoted from the Greek (*alexein*, to ward off, and *pharmakon*, poison), applied to persons who could resist poison, but more generally to drugs which will preserve from the effects of poison. Berkeley (1744) speaks of tar-water as "a great alexipharmacum."

ALEXITARY was a drug which would ward off contagion. Juniper berries, and the heart and livers of vipers, were among the most prominent alexitaries.

ALGAROT, or algaroth, was an emetic powder composed of terchloride and trioxide of antimony, named after the inventor, Victor Algaroth, a physician of Verona.

ALGUM tree is named in the Bible (2 Chron. ii. 8), and is believed by Max Müller to be traceable to the Sanscrit *vulgu*, and to apply to the sandal tree.

ALJANDAL is an obsolete term for colocynth. It is the old Arabic name.

ALIZARINE, the red colouring matter of madder (now made artificially from anthracene). The word comes through French and Spanish probably from the Arabic words *al-aqarah*, the latter term meaning some pressed out juice. Alizari is an old Levant name for madder.

ALKHEST, the universal solvent of the alchemists, was a word first used by Paracelsus, and believed to have been arbitrarily invented by him in imitation of an Arab term.

ALKALI is of Arabic origin. The word *galay* means "to fry," "to roast in a pan;" *al-qalay* was applied to the calcined ashes of the plants salsola and salicornia. The word is first met with in English in Chaucer (1386) in the not very musical lines:—

Salt tartre, alcaly, and salt preparat, And combust matieres and coagulat.

CHAU. Yem. Prol. and T.

In early chemistry (says Dr. Murray) alkali was supposed to be a specific substance which existed:—Fixed (in soda potash), volatile (in ammonia). Duhamel (1736) showed that there were distinct alkalies, and these were distinguished as mineral alkali (soda), vegetable alkali (potash), and animal alkali (ammonia).

ALKANET was a word apparently coined in Spain (*alecancta*) as a diminutive of *alcana*, the Spanish form of the Arabic *al-henna*. The latter refers properly to the Egyptian privet (*Larsonia inermis*, N. O. *Lythraceæ*), of which the leaves and young shoots were used by Eastern nations to dye parts of the body reddish-orange. *Alecancta* was applied to the European plant, the *Anchusa tinctoria*, N. O. *Boraginaceæ*. Professor Rogers, in "Agric. and Prices," has found alkanet mentioned in some of the old college accounts as far back as 1326, "Alkanet $\frac{1}{4}$ lb. at 1/8;" and in 1334-1376 as "1 lb. Alkanet at 8d." It would seem as if some "Stores" had been established between the earlier and the later dates.

ALL-FLOWER WATER is cow's urine, taken as a remedy, as it was in some districts even recently. The term is probably a euphemism.

ALL-HEAL has been applied to various plants: the mistletoe (Pliny); an umbelliferous plant, the *Opopanax chironium*; *Valeriana officinalis*; milfoil or yarrow; *Prunella vulgaris* (also called self-heal); woundwort, *stachys palustris* (Gerard).

ALLOPATHY was a term coined by Hahnemann to indicate the converse of homœopathy, from the Greek *allo*, other, and *pathos*, to suffer. It is defined in the Sydenham Society's Lexicon as "The curing of a diseased action by the inducing of another of a different kind, yet not necessarily diseased."

ALL-SPICE usually refers to the dried berry of the *Eugenia pimenta*, N. O. *Myrtaceæ*. It was so called because it was considered to combine the flavours of cinnamon, nutmeg, and cloves. The word has been used for other plants: the *Cylanthus floridus*, a flowering shrub native to the United States, cultivated in England; the *Chimonanthus fragrans*, or Japan all-spice; the *Lindera Benzoin*, a lauraceous shrub native to North America, whose berries, called wild all-spice, are said to have been used as a substitute for all-spice.

ALMOND is traceable from the Greek *amygdala*, Latin *amygdala*, to the Provençal and mediaeval Latin *amendola*. The Italians dropped the initial *a*, and made the word *mandola*, the Spaniards, as in many other instances, converted the *a* into *al*, and reached *alamandela*, which came into old French as *alemande*, and thence to English as *almand* and *almund*. Wyclif uses the latter form.

ALOE is found in Saxon forms as far back as the tenth century. It was always used as a plural word in old English. The course taken by the word has been aluwan, alewan, alwan, aloen, allowes, allowes, aloes. It seems to have been obtained from the Greek *alon*, which strictly referred to the bitter drug, but was used in the Septuagint to translate the Hebrew word *akhahim*, plural of *akhath*, the agalloch or lign aloes (*Agavea orata* and *A. agallochum*). Hence arose the confusion of the fragrant resin of the Bible with the bitter drug of pharmacy. The name has also been applied to the Agave, or American aloe (*Agave Americana*), the plant which is noted for its rare flowering. It is in reference to this plant that P. J. Bailey (Festus) says, "There are some hearts, aloe-like, flower once and die." The old writers tried to get the bitter aloes into metaphorical use, as, for example, Skelton (1526) speaks of "Bytter allowes of herde adversarye." But familiarity with the drug does not seem to have encouraged its adoption into poetry.

ALOPECIA (baldness) is derived from *alopex*, a fox, whence came *alopcia*, fox-mange, subsequently applied to human baldness. It may be satisfactory to quote from Lloyd's "Treasury of Health" (1585) a cure for this trouble:—"Burne the Heade of a great Ratte and myngle it wythe the dropynge of a Beare or of a hogge, and anointe the head, it heleth the desease called allopecia."

ALPHENIC, or alphenix, is a pharmaceutical term for white barley-sugar or sugar-candy. It is derived from the prefix *al-* and the Persian *fānid*, refined sugar.

ALTHLEA is Greek, from *altheein*, to heal.

Trade Notes.

THE Pasteur Filter Company have removed from Queen Victoria Street, to 29 Queen Street, Cannon Street, E.C.

**

LANOLIN is now employed in Germany in the manufacture of toilet articles, and *Lanolin Cream*, *Lanolin Pomatum*, and *Lanolin Cream Soap* are said to find a good sale.

**

MESSRS. A. S. WATSON & Co., drug merchants, of 106 Fenchurch Street, London, and Hongkong, have registered themselves under the Joint Stock Companies Act.

**

MESSRS. LORIMER & Co. have introduced a pure lime fruit juice, which is put up in attractive style. The bottles are as clear as the day, and the liquid within them perfectly pellucid and of full aroma. It ought to sell well during the warm weather.

**

MESSRS. BURROUGHS, WELLCOME & Co. publish in this journal a list of the special pharmaceutical preparations which they manufacture or sell. This now extensive series of valuable products is a remarkable sign of the times. The preparations sent out by this firm have, no doubt, found great favour in the medical profession. Messrs. Burroughs, Wellcome & Co. infused some science and art as well as novelty in pharmaceutical practice, and their ideas, carried out with abundant means, as well as with skill and reliability, were cordially received by the advanced section of medical men, and their success is encouraging to others who are disposed to put forward enterprise and good work in our important branch of the art of healing.

**

PELLETIER'S QUININE CAPSULES.—Previously (*C. & D.* 1884, p. 174) we have referred to these capsules, but for the benefit of new subscribers we may repeat that they are small pilular-shaped capsules of gelatine, each of which contains 10 centigrammes (1½ grain) of a salt of quinine; the makers now send out four salts—bromide, sulphate, bisulphate, and valerianate—in this form. Each capsule has the word "Pelletier" impressed upon it as a guarantee of the purity of the salt which it contains. The great advantage of the capsules is that though in pilular form they exhibit the readiness for assimilation which a powder affords. Messrs. Southall Bros. & Barclay, of Birmingham, have lately been appointed agents for the capsules, and they are active at present in bringing them under the notice of medical men.

VEGETABLE BUTTER-COLOURING.

MESSRS. OLDFIELD, PATTINSON & Co., Manchester, have recently made artistic improvements in the get-up of their "Silver Churn" butter-colouring, which has now been before the trade for four years, and has steadily grown in favour with butter-makers. This colouring is quite free from aniline, yet imparts a rich golden colour to the butter without affecting its taste or colouring the buttermilk. The manufacturers have so perfected the preparation that it assists rather than retards the union of the fat globules of the cream, whereby churning is greatly accelerated. The colouring is put in amber-coloured bottles, attractively labelled, and well calculated to sell, especially from the fact that the 6d. bottle is of good size. To meet the wants of those who prefer to bottle such things themselves, it can also be obtained in bulk.

PAPER of proper thickness is rendered transparent by soaking in copal varnish. When dry it is polished, rubbed with pumice stone, and a layer of soluble glass is applied and rubbed with salt. It is stated that the surface is as perfect as glass.

CONTRACTS OPEN.

The following unions are open for contracts for medicines and appliances:—

BALLYMONEY (IRELAND).—Forms from Mr. T. B. Hamilton, Clerk. Tenders to same by March 29.

DUBLIN.—Forms from workhouse master, and tenders from Mr. T. Phelan, Clerk, James Street, by 11 a.m. April 1.

KILMACTHOMAS (IRELAND).—Tenders to Mr. Hunt, Clerk, by March 30.

LISMORE (IRELAND).—Tenders to Mr. Healy, Clerk, by noon March 31.

AMMONIACAL LIQUORS.—Tenders for liquor produced by following companies:—

BLAIGOWRIE (N.B.).—Coal consumption 1,200 tons annually. Manager, Mr. Macrae. Tenders by March 29.

CAMBUSLANG (N.B.).—Tenders per 100 gallons to Mr. Black, Secretary, by March 31.

MIRFIELD.—Tenders per ounce strength (Wills's test) to Mr. Day, Secretary, Ravensthorpe, *rid* Normanton, by March 29.

SCARBOROUGH.—Information and tenders, Mr. Moon, Gas Company, Scarborough. Last day for tenders April 12.

BURNLEY (BOROUGH).—Creasote and other oil. Particulars from Mr. J. E. Stafford, borough engineer; and tenders, A. W. Creeke, town clerk, by March 31.

MANCHESTER.—Lancashire and Yorkshire Railway Company, through Mr. Stafford, Secretary, Hunts Bank, Manchester, supply forms of tender for engine, linseed, rape, and other oils, naphtha, and soap. Tenders received on April 5 by 10 a.m.

MANCHESTER, SHEFFIELD, AND LINCOLNSHIRE RAILWAY COMPANY.—Brushes, colours, crucibles, dysaltery, ink, oil, turpentine, soap and varnish, patterns, specifications, and forms, on 29th, from Mr. G. Lazenby, storekeeper, Garton. Tenders to Mr. Ross, Secretary, London Road Station, Manchester, by April 7, at 10 A.M.

FRENCH CORRESPONDENCE.

(From our Special Correspondent.)

EXAMINATION OF A PACK OF MARKED PLAYING-CARDS.—The applications of chemical science are developing in all directions, the detection of card-sharper's tricks being one of the latest. A French chemist lately received a pack of cards with the request to determine whether, before being placed on the table for use, it had been surreptitiously opened with a view to cheating. It was found that the manufacturer was in the habit of closing the paper wrapper round the pack by means of flour-paste. The pack under examination, however, bore traces of having been fastened with ordinary gum; and, in order to leave no room for doubt in the matter, the wrapper was allowed to float on a solution of iodine. The spots which had been in contact with the flour-paste were coloured blue, but showed white stains where the gum had been applied, the latter protecting the flour-paste from the action of the iodine. An imitation of the detected sophistication proved the correctness of the test.

DEATH OF ONE OF PASTEUR'S PATIENTS.—One of the nineteen Russian peasants under treatment died during the night of March 23/24, at the Hôtel Dieu from hydrophobia. They all came from Smolensk, where they were bitten by a mad wolf. The wounds of some of the patients are described as horrible, among them those of the pope, whose face is so bandaged up that little more than the eyes and mouth are visible. The deceased was one of the worst bitten. His death was painful, but much less than is usual; he never lost consciousness, never tried to bite anyone, and, in the words of an eye-witness, his case resembled to a certain extent that of a vaccinated person who has contracted the small-pox. As may be expected, conjectures are freely expressed, one of which is that the period of incubation may be shorter with

the rabies from the wolf than from the dog. One thing is sure though; this time the patients were unmistakably bitten by a rabid animal. The record of the treatment now shows two deaths out of five hundred cases of bites by both dogs and wolves affected with hydrophobia. The results are encouraging.

THE GALIUM ALBUM BEFORE THE FRENCH ASSEMBLY.—This harmless herb was on Monday, March 22, the object of an interpellation addressed by M. Steenackers to the Minister of the Post and Telegraphs. It is true the shot was aimed, not at M. Granet, but at the Sisters of St. Vincent de Paul, who have unjustly for the last thirty years enjoyed the privilege of sending through the mails packages of medicaments weighing five hundred grammes, while three hundred and fifty grammes is all that is allowed an ordinary pharmacist. The medicine in question is some sort of preparation from the fresh white ladies' bedstraw, made at La Teppe (Drôme) by the Sisters, and recommended as a cure for epilepsy. M. Steenackers, who at one time was himself Minister of the Post and Telegraphs, asked the actual incumbent, M. Granet, whether such an abuse was still permitted. The latter replied that he had suppressed the extraordinary privilege as soon as he had been made aware of it, and had no doubt M. Steenackers would have acted likewise had he been advised at the time he was a Minister. General laughter closed the discussion, and now republican equality reigns supreme among shippers of medicines.

THE SPECTROSCOPIC ANALYSIS OF ORGANIC BODIES.

PROF. W. N. HARTLEY, F.R.S., Dublin, recently communicated to the Society of Arts a paper on "Photography and the Spectroscope in their applications to chemical analysis." The paper covers twenty pages of the *Journ. Soc. Arts*, March 12, and contains a full account of the spectroscope and its adaptations. We quote the following passages in reference to the analysis of alkaloids, which is a recent adaptation of the spectroscope.

The ultra-violet rays are exceedingly sensitive to the action of carbon compounds, so much so that the photographic absorption can be employed as a means of identifying organic substances, and as a most delicate test of their purity. The curve obtained by co-ordinating the extent of dilution with the position of the rays of the spectrum absorbed by the solution of a compound forms a strongly marked and often its most highly characteristic physical property.

Organic substances are of three classes:—

1. Those which transmit continuous spectra and are highly diactinic. Examples—The alcohols, acids, ethereal and haloid salts, and carbohydrates.

2. Those which transmit continuous spectra, but yet possess strong absorptive power. Examples—Most essential oils and camphor.

3. Those which exhibit absorption bands. This class includes benzene, naphthalene, anthracene, and all their derivatives, nearly all the natural alkaloids, and many substances in which nitrogen and oxygen are united. Cymene, which is a derivative of benzene, has been detected, and even the amount estimated in many essential oils.

All these substances contain a nucleus with the same constitution as that of benzene. By the process of diluting with alcohol the presence of bodies of the aromatic series has been detected in essential oils, and even in some cases the amount of these substances has been estimated.

The greatest interest attaches to the examination of the alkaloids. Many of these substances are highly poisonous, they give no distinctive chemical reactions by which they may be identified, and the only means of recognising them are their crystalline form and physiological action. Some of the alkaloids have never been crystallised, and even such as are usually obtained in crystals are not always recognisable; moreover, the form and grouping of crystals is occasionally modified by such reactions or treatment as is necessary in the extraction of an organic base. No absolute reliance can be

placed upon the mere appearance of crystals which are microscopic; they must be submitted to recrystallisation by sublimation or some other process. The physiological action of certain alkaloids is remarkable enough to prove a means of identifying when the effect on the human subject is under observation; but it is to some extent capable of being modified by the extent of the dose, the administration of other drugs, or the idiosyncasy of the patient. These are well-known and grave objections to experiments of a physiological character. The whole subject of the modification of alkaloids by the reagents used in their extraction, variations in their crystalline character and in their physiological action, can be well illustrated by reference to the researches of Dr. C. R. A. Wright, F.R.S., on the various preparations known as aconitine. The evidence given at the trial of George Henry Lamson, a surgeon, at the Central Criminal Court, in 1882, for poisoning by the administration of aconitine, rendered of great importance any method of absolute physical measurement which might take the place of ordinary physiological tests in the identification of the dangerous alkaloids. The forthcoming volume of the "Phil. Trans." for 1886 contains an account of work on this subject, abstracts of which have already been published in the "Proc. Roy. Soc." (vol. xxxviii. pp. 1 and 191). About forty authentic specimens of the alkaloids have been examined.

Alkaloids and derivatives exhibiting spectra with absorption bands.

Aconitine	Diacetylcodéine
Pseudaconitine	Quinine
Japaconitine	Quinine sulphate
Morphine	Cinchonine sulphate
Narcotine	Quinidine sulphate
Codéine	Cinchonidine sulphate
Papaverine	Veratrine
Oxynarcotine	Piperine
Aponorphine hydrochloride	Brucine
Tetracyethylmorphine	Strychnine

The absorption spectra offer so ready and valuable a means of ascertaining the purity and of establishing the identity of the alkaloids, that drugs of such potency as aconitine, morphine, quinine, strychnine, &c., should be submitted to spectroscopic examination, so that their exact nature and degree of purity may be guaranteed before they are prescribed. The differences in character of the various specimens of aconitine are remarkable; the comparatively harmless base is easily distinguished, and of those which are physiologically active, each has its distinctive absorption curve.

The cinchona alkaloids show strikingly distinct curves; so in like manner do those of the Papaveraceæ. Two specimens of morphine exhibit the same curve, and so do two of codéine. There is a difference but yet a similarity between the morphine and the codéine, which arises from the constitution of the two bodies being only slightly different, codéine being a methyl-morphine.

Miscellaneous.

"YOU take one of these pills every three hours, miss."—
"Yes, but it takes me three hours to take one."

PATHOLOGY OF THE LONDON HERBALIST.—"You know, sir, bad spirits means that the liver is out of order. The doctors gives you a deadly mineral pizen, which they call blue pill, and it certainly do pizen 'em, but then you run the chance of being pizened yourself. You 'ave noticed the 'oles in a sheep's liver after it's cut up, 'aven't you? Well, them 'oles is caused by slugs, and 'uman bein's is infested just the same. So is awsz [horses], but they don't never take no blue pill. Catch 'em! The doctors knows all about it, bless ye, but they don't talk so plain as me. I calls out-of-sortsness 'slugs in the liver,' and pizens 'em with three penn'rth of dandelion tea, for which I charges thruppence. They calls it 'sluggishness of the liver,' and pizens 'em with a penn'rth of blue pill, for which they charges a guinea, and as often as not they pizens the patient too."—London *Cries*.

BANKRUPTCIES.

Re JAMES BELLAIRS, M.D., Oxford Street, Stepney.

IN the London Bankruptcy Court on March 15, a receiving order was made against this debtor, and the public examination was appointed for April 21. Mr. Bellairs owned some house property in East London, but it is mortgaged, and the other assets are very small indeed. The amount of the liabilities did not transpire.

W. H. H. DAY, Grove Vale, East Dulwich, and Peckham Rye, Physician and Surgeon.

THE first meeting of the creditors was held at the London Bankruptcy Buildings on March 18, Mr. H. Brougham, one of the assistant official receivers, presiding. It was, after some discussion, agreed that there should be an adjournment until April 15, to enable the debtor to make arrangements, which it is hoped will enable him to pay 20s. in the pound.

Re DR. JAMES GRANT, Longton.

ON March 17, at Stoke-on-Trent, before Mr. J. Marshall, Deputy Registrar of the Stoke and Longton Bankruptcy Court, Dr. James Grant, medical practitioner, Longton, who had been adjudicated a bankrupt upon the petition of Mr. C. Heaton, solicitor, appeared for his adjourned public examination. The bankrupt's statement showed liabilities amounting to 818*l.* 14*s.* 4*d.*; assets, book debts 300*l.*, estimated to produce 80*l.*, thus leaving a deficiency of 738*l.* 14*s.* 4*d.* In reply to the Official Receiver, the bankrupt stated that he commenced practice at Longton about sixteen years ago, without capital. From 1872 to 1877, during which period he was in good health, his practice was a good one, and brought in about 1,500*l.* a year. Out of that, however, he had to pay about 400*l.* a year for drugs, to pay three assistants, and to keep a horse, &c., so that his net income would not be more than 1,000*l.* a year. In 1877 his health began to fail, and he met with a series of accidents which prevented him from attending to his professional duties, and from that time his practice began to go down. In 1879 he fractured his right leg; in 1880 he was thrown from his trap, and dislocated both wrists, a spike at the same time penetrating through his side to his liver; and in September, 1882, he was again thrown from his trap, dislocating his knee and injuring his side. Mr. Bulloek: You seem to have been very unfortunate. Was that the last accident?—The Bankrupt: Oh, not at all. (A laugh.) Proceeding, he said that before he had recovered from the last accident an explosion of gas occurred in his bed-room, by which he was burned and otherwise injured. Subsequently he suffered from inflammation of the lungs, and in January, 1885, he was attacked and violently assaulted by a man at Blyth Bridge, and he was still suffering from the injuries he then received. Since 1877 he had not kept up his books. He denied positively that he had neglected his practice, except by reason of ill-health, or that he had been intemperate. His uncle, Mr. Allan, had purchased his furniture, surgical instruments, and a life policy, at the time he paid off his debts, about three years ago. He had not been solvent for five years past, and at no time in that period could he have paid 20*s.* in the pound if he had been pressed. He hoped, however, with improved health to improve his practice and get rid of his liabilities, and it was not until he received his solicitor's bill that he gave up the hope of recovering himself. By Mr. Hollinshead: He should think he had had 200 accidents altogether. After the bankrupt had given details as to his liabilities, and explained the nature of the transactions with his uncle—which he said were all intended to assist him through his difficulties—the examination was closed.

A. HUNT, Exeter, Wholesale Drysalter.

THIS debtor attended at the Exeter Bankruptcy Court on March 18, for his public examination. Mr. T. Andrew, official receiver, represented the Board of Trade, Mr. Priekman the debtor, and Mr. R. Southcott (the trustee) the estate. In reply to the Official Receiver, the debtor stated that in March,

1885, he furnished a statement of his affairs to his principal creditors. That statement was prepared by himself, and showed his assets to be 7,738*l.* 15*s.* 4*d.*, and liabilities 4,670*l.* 7*s.* 2*d.*, so that, according to his own estimate, he had at that time 3,068*l.* 8*s.* 2*d.* over and above his liabilities. In the printed statement now furnished to his Honour his assets were set down at 4,852*l.* 4*s.* 7*d.*, and liabilities 6,232*l.* 7*s.* 9*d.*, which would leave a deficiency of 1,380*l.* 5*s.* 2*d.* If that sum were added to the surplus from the previous balance-sheet, the deficiency during that time would amount to 4,448*l.* 13*s.* 4*d.* The Official Receiver: Then it would appear that during the interval of making out that balance-sheet and filing the statement your assets were worsened to the extent of that sum? The Debtor: Such a thing is hardly likely! If the surplus was first put at 3,068*l.* 8*s.* 2*d.*, and the deficiency is now stated to be 1,380*l.*, the two together must make the sum I have stated? Yes; there is no question as to the figures. How do you account for so great a deficiency during those nine months? If that account be true, you have in some mysterious way lost a lot of money in the interval. It has been going on for some ten years. His Honour said it was clear, according to the statement, that there had been a loss of between 4,000*l.* and 5,000*l.* in the course of the past year. The debtor, in further examination, said the statement of accounts prepared for the purposes of these proceedings was based upon Mr. Gadd's stocktaking. Mr. Gadd had valued his effects at 3,490*l.*, but if witness had valued them at cost price he should have set them down at over 5,000*l.* The debtor added that he had had many law processes against him, and had spent in legal matters during the last seven years nearly 4,000*l.*, and he should say that the law costs incurred during the past year alone would amount to over 500*l.* The Official Receiver said that would still leave a deficiency of 1,500*l.* to be accounted for. The debtor said there was the loss of discount sustained through his not paying ready money for goods. The Official Receiver said that Mr. Hunt had borne an irreproachable character in Exeter during the last twelve years. If the case were adjourned for a month probably his friends might be able to put figures together which would account for the deficiency. The Debtor: I thought the deficiency was accounted for fully. The Official Receiver: No: if the deficiency in the statement to the creditors be true, there is a sad state of things existing, and it is that which you are asked to explain, and not your dealings for the last seven years. Mr. Priekman: I think all the debts due to relatives were omitted. The Official Receiver: You are only making matters worse. His Honour said he thought the better course would be to adopt the Official Receiver's suggestion and adjourn the examination; and Mr. Priekman and the trustee having intimated their assent, the matter was accordingly adjourned till April 15.

THOMAS DIXON SNEATH, Newark, Chemist and Druggist.

THIS debtor appeared before the judge of the Nottingham County Court on March 16. He returned his liabilities at 2,268*l.* 5*s.* 8*d.*, and his assets at 616*l.* 3*s.* 7*d.* He intended to make an offer to his creditors when he filed his statement of affairs. He returned his unsecured creditors at 502*l.* 10*s.* 4*d.*, showing, so far as his trade debts were concerned, a surplus over 20*s.* in the pound. He put down 1,765*l.* as other liabilities. Mr. Smith said that they were misleading to the extent that, so far as his trade was concerned, he was solvent, and able to pay 20*s.* in the pound. The debtor stated the cause of his insolvency to be pressure from creditors, through having given accommodation bills, and having become liable through breach of terms by a third person. There were two or three writs against him, and for the benefit of his creditors he thought it best to file his petition. His father not only lent him 900*l.* to commence business with, but he also made himself liable for an overdraft, and in 1883 he paid a composition of 5*s.* in the pound. The creditors had now voted for a composition of 4*s.* in the pound. As a matter of fact, he had never been solvent since 1883. He was induced to give bills of accommodation without receiving any consideration except in one case. In answer to Mr. W. H. Stevenson, who appeared for him, he said that the bills were discounted to money-lenders, and he was sued by them. His father gave 2,000*l.* for the business when he bought it. He was allowed to pass.

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SEE ADVERTISEMENT, PAGE x.

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HAY'S SOLUBLE ESSENCE OF GINGER. See page 14.

HAY'S NEW PREPARATIONS. See page 14.

HAY'S COMPOUND FORTIFIED ESSENCE. See page 14.

EDITORIAL NOTES.

THE SHOP HOURS REGULATION BILL.

THE Bill to limit the hours of shop labour, which the House of Commons has referred to a Select Committee, and which is now under consideration, is a well-meant attempt to bring about a happier state of existence for a class of young persons who have been perhaps too much neglected by philanthropists and politicians. Sir John Lubbock is the author of the Bill, and it is endorsed by the somewhat variegated authority of Mr. Burt, Mr. Maenaghten, Sir R. Peel, and Mr. Rathbone. The original purpose of the Bill, which was to make it illegal for any employer to keep a young person, either a girl or a boy under the age of 18 years, at work in a shop or warehouse for longer than 12 hours in any one day, and is one we should gladly see enforced by law if it can be done. There are some obvious difficulties in the way of carrying out any such Act, but we doubt if these are insuperable. The secretary of the Early Closing Association has pointed out that in the smaller establishments, where the Bill should operate, the youthful employé usually sleeps under the same roof, and eats at the same table as his employer, and the relationship between the two would entirely deter the employé himself from wishing to be suspected of giving evidence against his employer. Only a "minion of the law" would have power to enter premises and ascertain if the employé's age lacked days, weeks, or months of the statutory term of years. Who but the employé himself would know at what hour in the morning he commenced work, and what period of rest during the day he received? The Bill could only be effective (in the view of the Early Closing Association) with the assistance of an army of duly appointed inspectors. But against this it

must be remembered that the moral effect of an Act of Parliament is very great, and though prosecutions may be but rare, the existence of the law on the statute-book would, in a matter like this, almost render its penal enforcement superfluous.

A serious effect of the Bill, if made law in its original form, might be that all the best shops would refuse to employ assistants under 18 rather than be subject to the annoyance of official inspection. Some of the large firms, represented by witnesses who have appeared before the Committee, have intimated that this would be the effect on them.

But a proposal has lately been made, and, it was said, had been accepted by the promoters of the Bill, the effect of which would be to enable two-thirds of the shopkeepers of a town to enforce something like early closing on their unwilling neighbours. We are told by the secretary of the Early Closing Association that there is a strong and growing desire, on the part of small shopkeepers especially, for some sort of compulsory early closing; and that Association, which has hitherto opposed legislative interference in the matter, seems now inclined to press for it. Some of the great London shopkeepers, too (who themselves would not be affected in the least), have expressed themselves before the Committee in favour of a law for compulsory closing at a certain fixed hour. That such a law would work some good we do not doubt. The majority of people would be benefited. Early closing by voluntary association seems almost impossible of attainment, though it must not be forgotten that great progress has been made, which we can see if we look back 30 or 40 years. But are we indeed ready for this reintroduction of the long-banished curfew-bell? What cases of hardship would arise if such a law were passed! We should hear of it as a law in favour of big firms like Shoolbred's, but one to prevent the little suburban shopkeeper from getting a living. We should hear that the little shopkeeper, more industrious than his neighbours, was stopped from continuing his work because those on his right and his left preferred to spend their evenings at the tavern. Certainly, if penal enforcement of the Bill should be necessary, the regular evening call from the policeman, and the occasional visit to the police court, would soon prove intolerable. It is proposed that the suggested clause should not affect chemists and druggists and some other trades, though we are not sure that chemists would be grateful for the exemption. The proposal may be a little in advance of opinion, but, however that may be, the agitation in regard to it will not have been all wasted energy, for it will show the community what is, in the general opinion, the maximum proportion of labour which ought to be demanded from assistants, and the tendency not to exceed that standard will be stronger than before.

INTERVIEW WITH SIR JOHN LUBBOCK.

SINCE writing the above we have had an opportunity of conversing on the subject of this Bill with its author, Sir John Lubbock. The honourable member for London University spoke, substantially, as follows:—

"The new clause you ask about is proposed by the Short Hours League, and it is not correct to say that it has yet been adopted by the promoters of the Bill. I think it is a matter for traders themselves to decide upon. Personally, I should say, that if a very large majority of tradesmen strongly desire legislation for compulsory closing at certain hours that object ought not to be frustrated by a very small minority. I should certainly say, if 98 per cent. of traders in a district wished to close at eight every night, they ought not to be prevented doing so by the remaining 2 per cent."

"Do you know, Sir John, the reason why it is proposed that chemists should be exempted from this clause?"

"I don't know whether there is a good reason, and on that point your Journal could probably help us. We should be very glad to ascertain what is the feeling of the trade on the matter. I presume a chemist, whenever he closes, generally has some one in to prepare a prescription if necessary."

"Yes; it is usual."

"Then, if so, his shop might as well be closed at eight as at ten. But we should be really very glad to know what chemists desire in this matter."

Would there not be a probability that much sympathy would be excited with a person who might be prosecuted for keeping his shop open beyond the fixed hour? Would it not seem that the law was hindering him in his industry?"

"I don't think there would be much occasion for prosecutions. I have been astonished at the evidence that has come forward of an almost universal desire on the part of shopkeepers for legislative interference. We have had very striking evidence to this effect before the Committee, and I have been overwhelmed with letters urging it on me personally. But, mind, we are not committed to the clause."

"The Early Closing Association do not seem to support your Bill?"

"No, they opposed my first Bill on the ground that legislative interference was not desirable; they oppose this one because they say it does not go far enough in that respect, as you will see from the first resolution they intend to propose at the Mansion House on Tuesday. Do you agree with the principle of my Bill as originally introduced?"

"Certainly, if it can be conveniently carried out. Twelve hours a day is quite enough for any young person to work."

Sir John Lubbock added that the evidence the committee had heard would probably induce them to substitute so many (70 or 72) hours per week for 12 hours per day, and he repeated very cordially his wish to be advised as to the feeling of chemists and druggists in regard to their exemption or otherwise in any Bill which may be introduced.

THE PHARMACEUTICAL SOCIETY AND ITS SCOTCH AFFAIRS.

IT is always darkest before the day breaks, and before a thunderstorm. Recently the clouds have been lowering on the northern pharmaceutical horizon, and the weather prophet of Bloomsbury interprets the signs to indicate mischief. We have fully reported the Scotch difficulties of the Pharmaceutical Society, and several correspondents—prominently one "Scotus"—have freely expressed in our pages the Scotch views on the question. A fortnight since the Scotch adherents of the Society were summoned to a meeting in Edinburgh, and at that meeting steps, very distinctly antagonistic to the pharmaceutical council, were taken, and the members freely ventilated their grievances. What was said there reveals the rather startling fact that the Pharmaceutical Council have either played with their trust in allowing an utterly illegal infringement of their statutory powers to grow to unmanageable proportions, or they have sadly neglected, and of late years bemeaned, a subsidiary organisation, which was working heart and soul in its interests. We do not attempt to solve the difficult point, whether a body unrecognised by charter of the Society is or is not legal. We expect it is, for all that the Council has proposed regarding it is to change its name and bring it under subjection. There is a clause somewhere in the charter which gives to the Council the exclusive control of the property of the Society; it is this clause, we understand, which is the basis of the action of the

Council against the Subsidiary Council in Scotland. If this argument is carried further, the Council would never cease looking after the Society's freeholds or its other investments; its professors, clerks, and liveried servants, might all be ordered to lie on the table occasionally with the Scotch protests for pillows, and frequent trips of the whole Council to Edinburgh should be taken in order to ascertain whether "the house" is still standing or not. There is no saying what the malcontents in Scotland may do in their exasperation. The reasonable course for the Council to have taken would have been to meet its Scotch members openly, let them know, as gently as possible, the state of affairs, and ask for their proposals for a remedy. Scotch influence in Parliament is understood to be powerful at times, because, when necessity arises, Scotch M.P.'s are a united body, and such a demonstration of national force before Imperial Parliament might have served well for such a small thing as an amendment of the Pharmacy Act. But this was not done, and a year has been lost before the Scotch solution of the question is allowed to leak out, as also the reason of their opposition to the by-laws. What the Scotch members want, and have asked for all along, is definite work to do in connection with the Scotch affairs of the Society; a Scotch appointed body to conduct these affairs—if necessary, under control of the general Council; and chiefly, that this body be definitely recognised by statute, by-law, or otherwise, as part and parcel of the Society. What the Council of the Society will not grant is the statutory or by-law recognition; they will grant anything but that.

Going back to the beginning, it seems that the Scotch pharmacists have managed affairs in any but the best way for themselves. In 1851 they had no special wish to join the Pharmaceutical Society; they could get one of their own if they wished. But, relying on representations then made by the leaders of the Society, they threw in their lot with the growing and august body, on the understanding that local autonomy would be given. And so it continued for a quarter of a century or more, and then the local autonomy gradually dwindled down, until, a few weeks ago, it entirely vanished in the appointment from London of an assistant-secretary. And so the Scotch members are stranded, or, as they think, sold. What the end of the matter will be it is difficult to say, but the immediate effect is that the Scotch members are determined to fight out the battle on constitutional lines, by making an effort to change the composition of the Pharmaceutical Council next May. Certain candidates have been talked of, and the next council election promises to be livelier than any recent ones. Whichever view is taken in regard to this particular dispute, it is hopeful to see, in regard to the election, some sort of spirit infused into what has become a very formal business.

CHANGE IN THE MEDICAL CURRICULUM.

AFTER a year's experience of the recent modifications in the series of examinations for the joint diploma of the Colleges of Physicians and Surgeons, the Committee of Management recommend the entire exclusion of botany from the first examination, and a rearrangement of other subjects, so that candidates may take *materia medica* and *pharmacy* in the first or second part of the examination as they desire. The first examination will, therefore, comprise henceforth—(1) Chemistry and chemical physics; (2) Elementary anatomy and physiology; and (3) *Materia medica* and *pharmacy*. The exclusion of botany from this and all other medical examinations has always appeared to us to be a

question of time. The days are now long past when medical men were the props of scientific study. Men now study such subjects as botany for their own sake, and it is not likely that the science will fall to the ground by its exclusion from the medical curriculum. Nevertheless, we agree with the *Lancet* that botany should not be entirely neglected. Biology is a fundamental part of the training of the physician and surgeon alike, and in many respects vegetable biology offers opportunities for initiatory study, which are not possible when the student deals with animal organisms. As yet biology has a somewhat uncertain position in the examinations, but probably the process of differentiation will soon allocate to it a distinct and important position.

The option given in reference to *materia medica* and *pharmacy* is a wise concession, and should be welcomed by students and teachers. Both have in the past complained of the position of the subjects in point of time, and it is granted by all that therapeutics is best taken in the final examination; yet when the student reaches this point he finds that much of what he has accomplished in *materia medica* and *pharmacy* would be valuable to him, but is unavailable simply because it was left behind in the examination room. From the medical point of view *materia medica* and *pharmacy* are thought of more on account of the time they occupy than for any good they afford. This has an important bearing on the public health. The comparatively trivial training which medical practitioners receive in these subjects is all that they obtain for the pharmaceutical part of their work; it is very inefficient for the purpose, and in the majority of cases receives scanty attention until its pecuniary value is appreciated. The chemist and druggist, on the other hand, must undergo three years' practical training in *pharmacy*, and afterwards be tested by most stringent examinations in *materia medica* and theoretical and practical *pharmacy*, before he is permitted to do the same work as the medical practitioner with his nine months' training and comparatively imperfect examinations. There is here an obvious legal anomaly. To remove it there ought to be equality of qualification if the present commercial equality is to continue. It is too late in the day to advocate the lowering of the standard for chemists and druggists; but it is not too early—indeed, in view of Sir Lyon Playfair's proposed Medical Bill it is opportune to insist that medical men who are to dispense medicines for the public, should undergo the same examinations as pharmacists, perhaps in a modified degree. If this were done a great impediment to pharmaceutical progress would be removed; the public would be greatly benefited, and to all who endeavour to make a living by pharmaceutical operations there would be "a fair field and no favour."

THE LOTUS FRUIT.

THE British Consul-General at Algiers (Mr. R. L. Playfair) has lately made an official tour through Tunis and about the coasts thereof, and he reports his observations to the Foreign Office in an interesting narrative. In that form the story of the trip, which has probably cost the country a few hundreds of pounds, will be read by something less than a score of persons, in consequence of that singularly occult wisdom of our serene Foreign Secretaries, who cannot be induced to perceive the advantage of spending a few more shillings annually in order to so circulate these consular reports that the valuable information they contain may find its way to persons interested.

In the course of his travels Consul Playfair visited the Island of Djerba, immortalised by Homer as the Island of the Lotophagi, "the land of Lotos and the flowery coast."

According to the poet, Ulysses found the inhabitants of that island very friendly and hospitable. "They devised not death for our fellows, but gave them of their own fruit, the lotus,

"Which whoso tastes
Insatiate riots in the sweet repasts,
Nor other home, nor other care intends,
But quits his house, his country, and his friends."

Every schoolboy has longed to get at the lotus, and botanists have also been somewhat interested in it. Different authors have fixed on various plants as the originals of the lotus tree. The ancient descriptions by Pliny, Theophrastus, and Polybius, are conveniently ambiguous, and the *Melilotus messanensis*, the *Nymphaea lotus*, or Egyptian lotus, and the *Celtis Australis*, or European nettle-tree, have been variously credited with the honour of furnishing the tempting fruit. But for a long time all authors have agreed in the assumption that the true lotus of chemical fame is the jubube, or *Zizyphus napean*, the *Rhamnus lota* of Linnaeus. Mungo Park, Desfontaine, and Dr. Shaw all agree in asserting this to be the genuine plant. The proof of this assertion seems to depend chiefly on quotations from early Arab authors, who, writing "de Loto arbore," described this plant known to them as the *sidr* or *sidur*, and whose fruit they called *nabk* or *nibuk*. Consul Playfair makes short work of this theory. The wild variety of the *Zizyphus*, he says, "is the common scrub of the country near Algiers, where Shaw resided: it becomes less common as we approach the south, and I neither saw nor could hear of the existence of a single plant in Djerba, which island Shaw never visited. No human being who has ever tasted its fruit once would dare to do so again; it is not, in fact, possible either for man or animals to exist upon it. There is a cultivated variety somewhat more palatable, but still, by no means, a luscious fruit, or worthy of immortality. It seems to me unnecessary to go out of the way to search for the Homeric food; the island is covered with it at the present time; no greater blessing than it was ever bestowed by Providence on man, and no other fruit is so all sufficient for human sustenance as the 'honey-sweet lotus' of the ancients; the date of the modern Arab."

Thus vanishes another of our ancient superstitions. The date has a very respectable reputation as a fifth-rate fruit, but it would not seduce many Anglo-Saxons from their regular occupations; and if the companions of Ulysses were so much enchanted with it, it must have deteriorated with the centuries, or, what is perhaps more likely, our sources of enjoyment have been so widely extended that it has been hopelessly beaten in the race of luxuries.

THE BANKRUPTCY ACT—ITS MERITS AND DEMERITS.

Few legislative enactments, probably, have been worked against more hostile influences than the Bankruptcy Act, 1883, and fewer still, it may be added, have so successfully carried into effect the intentions of their authors. Weak points there are, of course, in the measure, as will be pointed out presently, but, taken as a whole, it has tended to raise commercial morality by the imposition, under its penal clauses, of substantial punishment for reckless and improvident trading.

The course of procedure under the Act may be briefly sketched. Receiving orders can be obtained in two ways. A trader, finding himself unable to continue business, may present a petition to the Court setting forth that he is not able to pay his debts, and such a petition constitutes an act of bankruptcy, upon which the Registrar of the Court can

make a receiving order. A creditor also may obtain a receiving order against a debtor. To do this he must present a bankruptcy petition verified by affidavit, setting forth that the amount due from the debtor to him exceeds 50/-, or that an act of bankruptcy has been committed. The following constitute acts of bankruptcy:—Execution for any amount under process in an action; failure after seven days' notice to pay a judgment debt; notice of suspension of payment, and departure from the country with intent to defeat and delay creditors. The debtor is entitled to attend upon the hearing of the petition, and show cause against it. A receiving order constitutes the Official Receiver receiver of the estate of the debtor, and stays all proceedings by unsecured creditors. When it has been made, the debtor is called upon to attend at the office of the Official Receiver for private examination as to his liabilities and assets, the causes of his insolvency, and his trading career. The next step is the preparing and filing of the accounts, which are supposed to disclose the whole of his creditors, both actual and possible. These accounts are summarised and printed for distribution among the creditors, together with the observations of the Assistant Official Receiver. Then comes the first meeting of creditors, which must be concluded before the succeeding stage, the public examination, can be taken. If the result of the first meeting be the acceptance of a scheme of arrangement, a second meeting must be held after the public examination to confirm the scheme, while the Court's sanction has subsequently to be obtained; this sanction being equivalent to giving the debtor his discharge. In the case of the creditors deciding on bankruptcy, a second meeting is not necessary, but in addition to passing his public examination, the debtor must also secure an order of discharge from the Court before he can again trade on his own account. There are provisions for the annulment of a bankruptcy if, subsequently to adjudication, the debtor should be able to make a satisfactory arrangement with his creditors.

Dealing first with blots in the Act, the chief drawback will be found in the excessive amount of officialism and red-tapeism. The rule that all proofs must be lodged a clear day before the first meeting to entitle the creditor to have a voice in the proceedings is pressed with absurd stringency. Not infrequently the debtor omits to schedule all his creditors, or it may be he owes money to men in foreign countries, who could not possibly, by reason of the short notice given of the first meeting, send on their proofs in time. Yet by the ruling of the Official Receiver these creditors are debarred from taking any part in the proceedings, and, inasmuch as there is no power to adjourn a meeting for the purpose of admitting proofs, it may happen that a few friendly creditors may carry a resolution directly opposed to the wishes of the other creditors. Again, there is a tendency on the part of the officials in the department having the duty of working the Act to retain in their own hands, against the wishes of the general body of creditors, the arrangement of the case throughout. For instance, in a case *re Ashwin*, before the court recently, five creditors, representing more than nine-tenths of the total indebtedness, which exceeded 10,000*l.*, were in favour of the appointment of an independent trustee for the purpose of thoroughly investigating matters, in the hope that his action might lead to the recovery of a considerable estate. On the other hand, an equal number of creditors for very small amounts had been induced to give their votes in favour of the Official Receiver acting as trustee, and could the officials have prevented the appointment of an outside trustee, which seemed very probable for a time, as the Act requires a resolution for such an appointment to be supported by a majority in number

as well as value of the creditors, the result would have been that the estate would have been wound up rapidly, and unless an arrangement could have been come to between the Official Receiver and the bankrupt's solicitor for the latter to continue certain actions, the wishes of creditors with a substantial interest at stake would have been totally disregarded, as there was no estate out of which the cost of investigation could be defrayed. It is certainly desirable that more regard should be paid by the department to the wishes of creditors, and the bankruptcy officials should not act so arbitrarily as they are at present accustomed to. In their haste to wind up estates they often sacrifice a considerable percentage of the estate; stocks are almost given away, and little regard is had to the desirability of selecting a suitable time and place when enforcing realisation. A striking instance of official blundering in this respect occurred only the other day. A grocer had become insolvent, and at the first meeting of the creditors an offer was made of 50/- in cash for his horse and cart. The Official Receiver ignored that offer, realised the estate by auction, and obtained 30/- for the horse and cart, thus depriving the estate, not a very large one, of 20%. Complaints are frequently made of the abuse by the Official Receiver of his powers of summary administration, which come into force if the assets are reported as likely to realise less than 300/-, and the undue haste exhibited in selling estates often involves serious sacrifices.

The public examination, on the utility of which so much stress was laid when the Act was being passed through Parliament, partakes—at any rate in the London Court—very much of the character of a farce. The debtor is called and takes his stand in the box; a gentleman denominated the Official Solicitor rises, and using as his brief the admittedly imperfect data contained in the observations of the Official Receiver appended to the printed summary of accounts sent out to the creditors, addresses to him a number of very formal questions, the purport of which is frequently misunderstood by the person to whom they are addressed. The result is that the official questioner, who apparently knows absolutely nothing of the case beyond what he gathers from a very cursory glance at the papers, misapprehends the meaning of the debtor's answer, all parties get into a fog, and not a little time is wasted. Then creditors in attendance are invited to put questions to the debtor; but as it is necessary they should have lodged their proofs before they have a *locus standi*, those who probably knew nothing of the proceedings until they saw the appointment for the public examination in the public press are debarred by a mere technicality from eliciting information. Technicalities indeed rule the roost in bankruptcy. Registrars and departmental officials are alike tarred by the same brush; they are all apparently animated by the one desire to quibble over forms of procedure, and, by discovering some small informality, to delay proceedings and increase expense and trouble to the parties concerned.

Only one other blot need be dwelt upon, and that is the position taken up by the Official Solicitor with respect to the offence of keeping imperfect books. No discrimination is exercised; the large trader and the petty and ignorant tradesman are alike expected by the officials to keep an elaborate set of books. As a rule, of course, the clause scarcely affects the cases of men who have done an extensive business and failed for a considerable sum; but woe betide the unfortunate little shopkeeper who has omitted to keep books recording all his business transactions and disclosing his financial position at a glance. His failure may have been brought about not by imprudence but by sheer misfortune; he may for twenty or thirty years have struggled hard to pay his way and to keep his head above water, but this counts for

naught, and for the failure to keep proper books the Official Receiver opposes with vigour the grant of an unconditional order of discharge, and the Court imposes a penalty in the form of suspension. But note the difference in the attitude assumed by the officials when dealing with a debtor who has failed for a very large sum. He, or rather his employés, have of course kept elaborate books; the official report lays stress on the fact that this has been done, and cases have occurred in which the usual path has been diverged from in order to express regret at the necessity to appeal to the Court for relief, and to compliment the debtor on his course of trading in the past.

And now for a few words as to the satisfactory features of the legislation of 1883. Undoubtedly, notwithstanding the tendency to red-tapeism, a much larger percentage of the bankrupts' estates is distributed among the creditors than under the old system. The expenses of winding up have been largely curtailed—a fact which will amply account for the very bitter opposition which the Act has met with from solicitors having a bankruptcy practice, and from the numerous accountants who formerly thrived on insolvents' estates. This opposition was systematic in its operation. Creditors generally were advised not to force debtors into the Bankruptcy Court in all cases where a substantial dividend was likely to be paid, on the ground that the expense would be heavy; private arrangements and assignments became the rage—by thousands they were carried out; and inasmuch as there was no public registration of these assignments, the very foundations of commercial stability were being shaken. Only the worst cases were allowed to go into the Court—cases in which the assets were too often returned as *nil*. Experience in the working of the Act is, however, slowly bringing about a change in public opinion. Creditors are realising the fact that under its provisions dishonest trading is severely punished, and that, as compared with the practice under the Act of 1869, the expenses of administration are less, and the chances of a debtor concealing a portion of his estate are minimised. In the interests of commercial morality the Court has invariably refused to sanction nominal compositions, while the penal clauses have been enforced with commendable vigour; and debtors who have speculated with and lost other people's money have not only had their order of discharge suspended for a lengthy period, but have had their future earnings mortgaged.

This salutary provision, although partaking somewhat of the character of retrograde legislation, inasmuch as it was one of the leading features of the old insolvency administration, is calculated to check improvidence, and put a stop to rash and hazardous speculation.

These remarks upon the Act may best be concluded with suggestions as to the means of increasing the efficacy of this admittedly valuable piece of legislation. In the first place, some elasticity should be given to the rule as to the lodging of proofs, so that, in cases of unavoidable delay, creditors proving at the last moment should be allowed to have a voice in the proceedings. Next, it would be desirable to give creditors power to examine the debtor on oath at the first meetings, so that they might elicit reliable information. Thirdly, the public examination should be made more real, and the official entrusted with the duty of conducting it should take care to make himself acquainted with the facts instead of merely confining himself to a stereotyped catechism. Fourthly, more freedom should be given to creditors, and, fifthly, some uniformity is desirable in the administration of the penal clauses, as at present the four registrars acting under the Act hold widely differing views as to the amount of punishment which ought to be inflicted for offences proved to have been committed under the Act.

Medical Gleanings.

THE Medical Journals of the past week contain several papers of interest to pharmacists. The subject of

ARTIFICIAL RESPIRATION

is one which all should be perfectly familiar with, for the occasions are frequent on which one's knowledge may be called into request. On this subject Mr. J. A. Francis, L.S.A., sends a sensible paper to the *British Medical Journal* (March 20, page 540), and recommends a method of restoration which is exceedingly simple. The first thing to do in cases of drowning, for example, is to place the body flat on the back, unloose the clothes around the throat and chest, then pass a stout walking-stick, or any similar strong lever, under the body at the waist; then raise the body until the tips of the fingers and the toes touch the ground. Count fifteen rapidly, then lower the body flat to the ground and press the elbows to the sides hard. Count fifteen again; raise the body as before, and so on until respiration is restored. For an adult two grown-up persons are required to carry out the operation, and in the absence of a suitable lever the right and left hands of the operators may be clasped under the back; but attention should be paid to the fact that a narrow lever is important to permit full extension of the spine—hence the clasped hands should only be used as a last resort. Operators should never despair of returning life: perhaps half an hour, or even more, may be spent without any apparent result, and the operation be given up as hopeless. Keep in mind, therefore, that prolonged action is the life of the apparently inanimate subject. Stimulants should be given if there is the slightest indication that the power of swallowing is not lost, and all other means which will impart warmth to the body are more likely to have good than bad influence.

If there is anything particularly characteristic of modern therapeutic treatment it is the tendency of physicians to keep up the bodily strength, to administer the minimum of physic only, and thus to fight acute disease with a strong opposing force. It is a significant testimony to such treatment that at the critical or turning point in severe cases medicine is abandoned altogether, and life-sustaining food and stimulants are literally poured into the patient. Lately, Dr. M. G. Kurloff, of St. Petersburg (*Lancet*, March 20, page 557), has been studying

DEBORE'S "CRAMMING" OR "FORCED FEEDING"

System, on five phthisical patients. In this "cramming" system a stomach tube is employed should the patient have intense repugnance to food; and this had to be done in some of Dr. Kurloff's cases. The food which he administered was a mixture of milk and pulverised meat, from which all the liquid portion had been expressed. The amount of food given afforded in the minimum 54 grammes of nitrogen (equivalent to 3½ lbs. of butcher's meat), and in the maximum 80 grammes of nitrogen (equal to 5½ lbs. of butcher's meat). This was given daily, and the immediate effects were an increase of excreted nitrogen from 9 and 16 to 34 and 56 grammes per day, due to increased breaking up of the albuminous constituents of the body. With this breaking up there was an increase in assimilation of nitrogen to the extent of threefold, weight increased 1 lb. per day, and the appetite (which previously was almost nil) improved so remarkably that the patients, after a week of the treatment, eagerly partook of ordinary hospital diet to excess of the usual allowance. So far the feeding results were most satisfactory, but there have to be recorded the facts that in three consumptives expectoration diminished, diarrhoea and night sweats ceased, and some of the patients so improved in general health as to be able to return to their every-day work.

Within the past decade the

MEDICINAL USE OF PHOSPHORUS

by the public without proper medical advice has increased enormously, in spite of warnings as to the dangers attendant upon the continued use of this potent "enervator." At the last meeting of the Clinical Society of London (*British Medical*

Journal, p. 545) Mr. Hutchinson read notes of a case which well illustrates the dangers of self-medication. An old lady (65) had for two years taken three of Kirby's $\frac{1}{3}$ rd grain phosphorus pills daily, and "quite renovated her brain thereby;" but meanwhile necrosis of the lower jaw set in to such an extent that "bare discoloured bone was disclosed in the mouth the whole length of the alveolus;" this necessitated the removal of four inches of dead bone. The patient made a good recovery.

This is a wholesome warning to the phosphorus-taking public, and is a powerful argument in favour of the sale of such medicines by those only who are cognizant of their properties. It is always a safe plan for the dispenser to keep himself "posted up" in cases where cumulative remedies are prescribed; a casual chat may give an opportunity for a hint as to a fresh consultation with the physician, or for a word of warning, as the case may be. Cumulative medicines are an important study, and we appear to have found another member of the group in quinine. We cannot positively assert that it is cumulative, but at the last meeting of the Ophthalmological Society, Mr. Lang reported a case of deposit of

QUININE IN THE CORNEA,

which may lead to an inference of the kind. The patient had suffered from ulceration of the cornea, and had been treated with external applications of eserine and six grains of quinine daily. The result of this was the deposition in the cornea of granular opacities, which by oblique illumination were found to be fluorescent. Mr. Lang based his surmise that the deposit was quinine upon fluorescence alone, but we are inclined to agree with the members who said that some other proof is required. Still, the subject is interesting.

The unusually severe and prolonged winter has been productive of a rich crop of remedies for bronchial affections, and the extension of inhalation treatment is noticeable. This is unquestionably rational treatment in acute cases, and in bronchitis simple remedies, such as essential oils, camphor and like volatile bodies, do add to the beneficial influence of steam alone. But how far such treatment with non-volatile bodies is legitimate may well be questioned. Lately we noticed one enthusiast tell the wonderful results he had obtained by inhalation of ipecacuanha vapour in steam; and now we have to record

BELLADONNA INHALATION,

which is recommended by Mr. N. E. Davies (*British Medical Journal*, March 20). Mr. Davies treated successfully a case of dyspnoea, which threatened to terminate life, by inhalation of a grain of belladonna extract in half an ounce of water, by means of a Siegel's inhaler. The question which this treatment involves is, What principle of belladonna effected a cure in this case?

Up to the present the fullest statement of results by the

PURE TEREBENE TREATMENT

in winter cough is in a paper by Dr. Suckling, co-professor of materia medica and therapeutics to the Queen's College, Birmingham (*British Medical Journal*, March 20). He had the remedy on trial at the workhouse infirmary there in 100 cases; 72 were relieved, some of them "greatly," and 28 were not relieved. "The 72 patients benefited all said that the medicine easeth their breathing, but many asked for medicine in addition to ease their cough." He compares these results with those in 100 cases previously treated by the routine method, which consists of the following mixture:

Ammonia carbonatis	gr. iii.
Tinct. scillæ	ml. xv.
Tr. camphore co.	ml. xv.
Inf. senegæ ad	3j.

To this was added occasionally a few grains of potassium iodide to relieve difficult expectoration, or lobelia for dyspnoea, and in many cases cod liver oil, which Dr. Suckling considers "one of the most useful of all drugs in the treatment of chronic bronchitis." The results were—28 cases cured, 68 relieved, 4 not relieved, and no case of ill-effects, whereas 37 complained of different bad effects of terebene. Dr. Suckling sums up his experience of terebene with the following statements:—

- (1) It greatly relieves the dyspnoea of chronic bronchitis.

(2.) It is very variable in its action, the same specimen causing good results in some, bad symptoms in other, patients.

(3.) It is by no means a specific in chronic bronchitis.

To this we may expect a reply from Dr. Murrell and others.

Recently a discussion was opened by Dr. Isambard Owen at the Southern Branch of the British Medical Association on

THE ETIOLOGY OF PHthisis.

From the report (*British Medical Journal*, March 20) we quote the following interesting facts. The first is another arrow for the quiver of temperance advocates. In St. George's Hospital 50 per cent. of the consumptives are admittedly excessive drinkers, though in the general run of hospital cases this class contributes only 33½ per cent. Of temperate people, on the other hand, 41½ per cent. are found amongst the general cases, but only 23 per cent. of temperance people are found amongst consumptives. This is an old fact, but it is well to have it recorded in plain figures. It appears that consumption in Great Britain is most prevalent in Lancashire, Derbyshire, and some parts of Wales. As to different countries, Iceland, Egypt, the interior of South Africa, the Gold Coast, and some other parts, are characteristic for their infrequency. Peruvian Indians and the Chinese are peculiarly insusceptible to phthisis, yet the negro is quite the opposite when away from his native land. Several interesting statements were elicited regarding infection, and the cases pointed to hereditary influence rather than communication by germs.

POISONING WITH CAMPHOR.

A young man, unaccustomed to strong drink and suffering from a cold, procured some Rubin's essence of camphor lately, and took it in "pourings" to the extent of two drachms in the course of an hour. Giddiness, insensibility, and convulsions were the result. From these symptoms he recovered under the treatment of Mr. East, who records the case in the *British Medical Journal*, March 20.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications relating to patents, designs, or trade marks to be addressed to H. Reader Lack, Esq., Comptroller-General of Patents, Designs, and Trade-marks, Patent Office, 25 Southampton Buildings Chancery Lane, London, W.C.

From the "Trade Marks Journal," March 24, 1886.

"EYE-LIGHT RESTORER," with representation of old woman; for a medical compound. T. C. Fyson, St. Neots, Hunts. 41,627.

"SAVON JAPONAIS" (43,144,5); "SAVON CHINOIS" (43,147); "PAR EXCELLENCE" (43,146); "SPÉCIALITÉ" (43,148); "LANCASHIRE AND YORKSHIRE BOUQUET" (43,150); "BOUQUET OF THE ISLES" (43,151); "WESTERN COUNTIES BOUQUET" (43,153); "EXQUISITELY PERFUMED POMADE" (43,155); "LADIES' MILE" (43,157); "PFLARGONIUM" (43,159). Various ornamental labels for perfumers and preparations for the hair. J. Richardson & Co., 20-23 Artillery Lane, E.C.

"CUTICURA;" for chemical substances used for veterinary purposes. Potter Drug and Chemical Company, Boston, Mass., U.S.A. 47,630.

"OSTERODE HEALTH CLOTHING;" for wool, wadding, and blankets. Slazenger & Sons, 56 Cannon Street, E.C. 48,350.

"CANDYNE," Oblong label with representation of Chinaman washing dog. For a dog-wash. C. H. Huish, 2 Primrose Villas, Overhill Road, Forest Hill, S.E. 48,703.

"THE GREAT AFRICAN COUGH BALM;" for a medicine. H. Sharp, 30-2 Hyde Park Road, Leeds. 48,712.

"TIGER MOSQUITO WASH." Oblong label with representation of mosquito and printed matter. E. Meyrick, 44 Devonshire Street, W. 49,014.

"DR. BLUMENDORF'S WORM SPECIFIC." Large oblong label with printed matter; for a veterinary medicine. Gresswell & Gibbons, Nottingham. 49,019.

"DR. ROBERTS' CELEBRATED MEDICINES." Beach & Barnicott, Bridport, Dorsetshire. 49,177.

"AQUAVITA," with representation of woman and lion in Oriental landscape; for a tincture for the teeth. Hy. Sell, 167 Fleet Street, E.C. 49,417.

"FRIEDRICHSHALLER BITTER WASSER." Large label with letter "F" pierced by arrow, and instructions in German. For a natural mineral water. Apollinaris Company (Limited), 19 Regent Street, S.W. 49,535.

"THE REAL G. R. IV. LAVENDER WATER." Oblong label bearing printed matter; for a perfume. Bredenbach & Co., 157e New Bond street, W. 49,731.

"BURMAH BLUE." Label with words and medal; for a chemical substance used in manufacture. Ivan Levinstein & Co., Manchester. 49,832.

"SHEPPARD'S LINCOLNSHIRE OINTMENT AND PILLS." Label bearing the above words and shield, with printed matter; for a medicine. Thos. Smith, trading as the "Mutual Advertising Agency," 132 Fleet Street, E.C. 50,057.



RECEIVING ORDERS AND DATES OF PUBLIC EXAMINATIONS.

BELLAIRS, JAMES, Oxford Street, Stepney, doctor of medicine. April 21, at 34 Lincoln's Inn Fields.

DRUMMOND, JOHN, George Yard, Fenchurch Street, City, and Southend, drug merchant. May 7, at 34 Lincoln's Inn Fields.

EVANS, BARROW, Derby, formerly chemist and druggist, now in employment of manufacturing chemist. April 10, at Derby.

ORCHARD, ALBERT, Eastville and Montpelier, Bristol (trading as "Orchard & Co."), druggists' sundryman. April 2, at Guildhall, Bristol.

PILKINGTON, GEORGE, Stockton-on-Tees, surgeon. March 24, at Stockton-on-Tees and Middlesborough.

SALMON, THOMAS, Denbigh, chemist and druggist. April 8, in Court House, Denbigh.

FIRST MEETINGS.

EVANS, BARROW, Derby, formerly chemist and druggist, now in employment of manufacturing chemist. March 31, at the Official Receiver's Offices, Derby.

JAMES, GEORGE ROBERT, High Street, Sydenham, veterinary surgeon and farrier. April 2, at the Official Receiver's Offices, 109 Victoria Street, Westminster.

ORCHARD, ALBERT, Eastville and Montpelier, Bristol (trading as "Orchard & Co."), druggists' sundryman, &c. March 31, at the Official Receiver's Office, Bristol.

SALMON, THOMAS, Denbigh, chemist and druggist. March 30, at the Official Receiver's Offices, Chester.

THACKER, HENRY, McLean's Buildings, New Street Square, City, Bristol, and New Barnet, Herts (lately trading as "Henry Thacker & Co." at Birmingham and Manchester), ink manufacturer, &c. March 31, at Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields.

ADJUDICATIONS.

GRANT, JAMES, Longton, Staffordshire, medical practitioner.

PILKINGTON, GEORGE, Stockton-on-Tees, surgeon.

TUDOR, WALTER, Farnley Road, Harrow Road, Paddington (trading as "Tudor & Co."), perfumer.

NOTICES OF DIVIDENDS.

MOORE, JOHN HENRY, Pownall Road, Dalston, and Duncan Street, London Fields, sheet-gelatine manufacturer. Composition of 2s. 6d., any day except Saturday, at Chief Official Receiver's Office, 33 Carey Street, Lincoln's Inn.

ORDERS OF DISCHARGE.

MCGILL, ANDREW, St. Leonard's Road and Abbot's Road, Bromley-by-Bow, doctor of medicine.

STEVENSON, GEORGE GRANT, Liverpool Street, City, and Sandwich, Kent, seed-crusher and oil-cake manufacturer.

PARTNERSHIPS DISSOLVED.

ECK, CALLOW & CO., Clerkenwell Green, London, electrical engineers. As far as regards D. J. Callow.

FENNER & LANDHOFF, Phoenix Wharf, Millwall, chemical manufacturers. As far as regards H. W. Fenner.

MELLOR, E. R., & H. S. COTTRILL, Salford (under the style of the "Salford Oil Refiners' Company"), oil refiners. As far as regards E. R. Mellor.

POWELL BROTHERS, Mansfield, Nottinghamshire, aerated-water manufacturers.

YOUNG, F. & CO., Clerkenwell Green, scientific instrument case makers. As far as regards D. J. Callow and M. A. Callow.

Trade Report.

It should always be remembered that prices quoted in this section are as nearly as can be ascertained the lowest that are actually paid for bulk quantities. Considerable allowances have to be added in many cases before ordinary prices can be ascertained, and for many drugs it must be recollect that the range of quality is very wide.

MINCING LANE, March 26, 1886.

ACID (CITRIC).—As mentioned in our last reports a sale took place last Friday at the parity of 2s. 1½d. per lb.; and on the following day a transaction at 2s. 1d. per lb. for prompt cash was reported, but by several well-informed parties this latter transaction was stigmatised as a "bogus sale," and no such price said to exist. Indeed, one holder asserted on Monday that he had that day refused several offers at 2s. 1½d. per lb. for spot. The stock in first hand is said to be under 100 tons, of which 90 per cent. is in the hands of three or four firm holders who expect shortly to realise from 2s. 6d. to 2s. 9d. per lb. It is further stated that the stock is as nothing compared to the engagements for "forward delivery" which will ere long fall due. The makers still hold at 2s. 4d. per lb. There are no orders of any importance in the market. At the close the market is rather steadier, the quotation being 2s. 1½d. to 2s. 2d. for spot; sales are reported at 2s. 2d. for arrival, April to May, and May to June.

ACID (TARTARIC).—The market is irregular, the nearest quotations being 1s. 8½d. to 1s. 9d. per lb. for foreign, and 1s. 9½d. to 1s. 9½d. per lb. for English.

CAMPHOR steady; of *China* our stock is very small and no transactions are reported; of *Japan* there is a stock of about 7,500 packages, rather less than average; the nominal quotation is 70s. per cwt., but as no large orders are passing it is difficult to say at what lowest price purchases could be effected; an offer of 66s. 6d. for fresh, rather damp, reweight, was declined some days ago.

COCA LEAVES.—We hear from Hamburg that a very strong demand has sprung up during the last few days, and all thin, broken Truxillo leaves which the first hand was willing to sell at about the parity of 200m. have been bought up. A good quantity still remains with first hand holders, but this is practically out of the market at present, being held at a limit of 275m. to 300m.

DRYSALTERIES.—The public sales held on March 23 excited hardly any interest, and the parcels offered were but a poor show on the whole.

ARGOL.—Of 160 bags Cape only 22 sold at 70s. to 73s. for low red, very dusty and unclean, 88s. for dusty grey, and 110s. for 3 bags fine white, partly bold lump.

BUTTON LAC.—45 chests partly sold without reserve, at 45s. to 55s. per cwt., according to quality.

CUTCH.—Holders are reported to be very firm, and the prospective supplies are said to be small; but there is little business doing. Only 233 boxes, consisting of low to medium qualities, were offered in sale on Tuesday, and all bought in at 8s. for very low ASA shipped from Hamburg (for which 5s. 6d. was bid) to 26s. for Maltese Cross. The present quotations are, fine hard tablets *Double Eagle*, 32s. per cwt., with moderate supply; *M. M.* tablets, 29s. 6d. per cwt.: *Star B.*, in block, at 29s. 6d.; and *Eagle*, in block, at 28s. per cwt. The shipments from Burmah to all parts from January 1 to March 20 amount to 3,380 tons (1,700 tons to Europe), against 4,770 tons in 1885 and 4,450 tons in the same period in 1884.

GAMBIER in *block* is quoted at 20s. 9d. per cwt. on the spot, and 21s. for arrival, at which figures a fair business has been done. In *cubes* nothing is doing. In sale on Tuesday 9 cases spurious cube were bought in, and 6 bags badly damaged, and low cube, sold at 18s. per cwt.

MYRABOLANS are obtainable at 6d. cheaper prices for all varieties. A fairly good supply of 3,661 bags was offered for sale but met with little demand, only 463 bags finding buyers at the following figures:—258 bags good yellow Bombay

(Bhimlie) at 9s.; 89 bags common and dark at 4s. 9d. to 5s.; 44 bags Jubblepore character at 7s. to 8s., and 72 bags dark wormy pickings returned from the Continent, at 2s. 9d. per cwt.

PLUMBAGO.—73 barrels sold without reserve at 5s. to 7s. 6d. per cwt. for dust to fair chips, part sea and oil damaged.

SEEDLAC.—Of 54 packages, 44 sold, at 34s. to 37s. per cwt.

SHELLAC is flat, and fine orange variety selling at 2s. lower prices than last week, the other kinds realising previous values. A total of 311 chests was all which came in sale, and of this 125 chests fine orange, BSLS, realised, without reserve, 70s. per cwt.; 10 chests shivered ditto at 67s. to 68s. per cwt.; 10 chests second orange GA in diamond, 53s.; 15 chests KD in diamond, 52s., 29 chests MJ in diamond, 52s., 25 chests GN in diamond, 52s., and 11 cases DAC in triangle, dark and blocky, 48s. to 49s. per cwt., without reserve.

STICKLAC.—49 packages all bought in.

TURMERIC remains very flat at unchanged prices, owing to absence of business. In sale 150 bags Madras, bulbs and finger mixed, small to medium root of dull colour, withdrawn at 16s. per cwt., 13s. being offered; 2 bags low, slightly wormy Bengal sold at 14s. 6d. per cwt.

ESSENTIAL OILS.—*Clove* dearer in sympathy with the spice, and held at 4s. per lb. good quality. *Peppermint* is easier for American, H. G. Hotchkiss being quoted at 18s. 6d. to 18s. 9d. per lb. *Bergamot* and *Lemon* are reported to be somewhat cheaper in Sicily, as buyers did not respond to the higher quotations lately asked. The Messina quotations now are 10s. 7d. and 9s. 7d. respectively. In the last drug-sales 2 cases *Sweet Orange* and 1 case *Camphor*, containing 50 1-lb. bottles each, were offered and bought in, being now held at 5s. 3d. for the orange and 1s. 9d. for the camphor. These cases formed part of the first consignments of Cocking's (Yokohama) oils of that class shipped to this country, and must be pronounced of excellent appearance and flavour. Messina sweet oil of orange is quoted at 10s. 10d. per lb. *Ylang-ylang*—We understand that the greater part of the exceptionally fine lot to which we referred in our last issue has been sold in the meantime.

The GUM SALES held this day, although fairly extensive, presented little attraction in the shape of fine parcels, most of the 2,041 packages *Gum Arabic* offered consisting of common to medium Ghatti, Madras, and Amrad. There was a fair demand, and prices remained firm for Ghatti, but were irregular for Madras, Aden, Senegal, and Cape Gum, of which latter variety there was a good show so far as quantity is concerned. Five packages red Australian gum sold at 64s. to 75s. for fair woody to good, partly bold, mixed quality. Cape gum, low, dark blocky to fair, brought 44s. to 45s.; good palish, partly bold, 50s. Aden, good bright, small to bold, dusty, olibanum scented, 98s.; fair, but mixed with sand, 60s.; ordinary to low dark, 52s. to 30s.; siftings, 47s. to 62s. *White Mogadore*, little reddish, mixed, sold without reserve, 102s. 6d. per cwt. Ghatti, fine pale to darkish, sold at 72s. 6d. to 45s.; dull woody ditto, at 23s. 6d.; siftings at 8s. to 17s. Madras, red, at 57s. 6d.; fair, but dark to black and woody, 43s. to 21s.

Turkey Sorts.—The market is maintained, but transactions are on very small scale. Eleven bales of fair sorts, sea damaged, sold cheaply, without reserve, at 8s. 12s. 6d. for 4th class up to 97s. 6d. for 1st class. *Gum Sandarac*.—76 barrels bought in at nominal prices. *Gum Thus*.—Ten barrels from America, which have been offered in sale at different times, were again bought in at 17s. per cwt. *Gum Olibanum*.—Of 311 packages only 47 sold; viz. good, but blocky seconds from Aden at 52s.; fair siftings at 10s. 6d., and low dark blocky pickings at 12s.

QUERCITRON BARK.—402 bags Baltimore bought in at 5s. 6d. per cwt.

WAX.—*Japan*, 30 cases good squares bought in at 57s. per cwt.; *Carnauba*, a parcel of 27 bags fine yellow quality which failed to find a buyer in the last drug sale was again bought in at 52s. per cwt.

KAWA-KAWA.—Our druggists are said to be almost out of stock, and 3s. per lb. would probably have to be paid for small lots, if at all obtainable.

LYCOPODIUM appears to be gradually advancing on the American market, and the few holders there are reported to be releasing supplies sparingly in the belief that higher figures will rule before the next crop is ready for the market. The importations into New York in 1885 were 7,626 lbs., against 55,000 lbs. the year before.

LEMON-JUICE (CONCENTRATED).—Messrs. J. B. Gray & Co., of 7 Fenchurch Street, E.C., are advised from Messina that owing to the absence of large orders from abroad prices receded for spot lemon-juice to 32*l.* 13*s.*, and for April-May delivery to 33*l.* 3*s.* 6*d.* per pipe of 130 gallons O. C. M. on the basis of 64 ozs. citric acid per imperial gallon, at which price some large parcels have changed hands during the last few days. Above prices are the lowest touched, and there are still buyers thereat. The tendency of the market is firm, and should any extensive export orders be received prices would certainly go up again.

BERGAMOT-JUICE—Last price for export was 25*l.* 17*s.* 6*d.* f.o.b. Messina, now quoted at 25*l.* 7*s.* per pipe on the basis of 48 ozs. citric acid per imperial gallon.

MENTHOL.—On the second day of the last drug sale, as briefly reported in our issue of March 20, a considerable supply, amounting to 11 cases, containing together 248 5-lb. tins good, but rather dampish crystals, of medium to large size, was sold without reserve at 10*s.* 3*d.* and 10*s.* 6*d.* per lb. We understand that this parcel formed the subject of a sale on forward delivery made some time ago by the American Trading Company of Fenchurch Street. Upon arrival the buyer refused to accept the parcel, giving late delivery as his reason of refusal, and it was then sold "for account of whom it might concern," the transaction, it is rumoured, being about to be brought before a court of law. However this may be, the price realised, low as it was, does not seem to have disappointed holders, although the sale had been made at 21*s.* 6*d.* per lb.; but it would obviously be unwise to accept this isolated sale as an indication of the regular market value, although no doubt several holders have been frightened by it. The stock in first hand in this city is computed at about 2,800 to 3,000 lbs., not counting the 1,240 lbs. which were sold last Friday, and is said to belong mostly to firm holders. Messrs. Cocking & Co.'s agents quote to-day (March 23), Cocking's Japan extra steam-refined peppermint oil 12*s.* per lb., less 2*½* per cent. in cases of 50 1-lb. bottles. Cocking's Japan menthol cryst., in 5-lb. tins, 15*s.* per lb. net; ditto, June delivery, 13*s.* per lb. net. There was a rumour current that Messrs. Cocking's agent in Paris offered the menthol crystals at 11*s.* 6*d.* per lb. in the beginning of this week; but of this nothing is known to the London agents of the Yokohama house. Upon inquiry we find that the parcel above referred to was originally sold by the American Trading Company to Messrs. Brückner & Koenigsheim, of 59 Mark Lane. We understand that the delivery did not take place at the time appointed, and that the buyers consequently refused acceptance; but it is also expected that the question of the quality not being equal to the sale-sample will be raised. The American Trading Company, however, acting under legal advice, have determined to sue Messrs. B. & K. for the loss sustained by the forced sale, on the ground, it is said, that before finally refusing acceptance of the menthol they allowed an extension of time. We understand that a writ will be applied for as soon as the American Trading Company are in possession of the dock charges and other necessary documents. Messrs. Brückner & Koenigsheim are reticent on the subject.

OPIUM.—The market remains quiet, business being almost confined to soft shipping qualities. The present quotations are:—

	Per lb.			
	s.	d.	s.	d.
Soft shipping, finest new	14	6	15	0
" " old	12	0	13	6
Druggists', Constantinople, first	10	0	12	0
" Smyrna	10	0	10	6
" seconds	8	6	9	0

The two cases Mozambique opium which fetched 7*s.* in last drug sale were brought to England from Cadiz in 1883, and have so far failed to find a buyer, owing, it is said, to the exaggerated pretensions of the holder, who held it at 16*s.* per lb., until he finally gave way and accepted less than half that amount.

COCOANUT OIL.—In this article very little has been doing lately, and prices are, so to say, nominal. Holders ask for Ceylon in pipes 26*l.*, hogsheads 26*l.* 10*s.*, Cochin in pipes 29*l.*, Mauritius 26*l.* 10*s.*

LINSEED OIL.—Spot oil is firmer, but forward remains steady, town casks close at 20*l.* 7*s.* 6*d.*, barrels 20*l.* 12*s.* 6*d.*; for May-August, business has been doing at 20*l.* 7*s.* 6*d.*, and September-December at 19*l.* 17*s.* 6*d.* Hull quiet; spot, 20*l.* 10*s.*; May-August, 20*l.* 5*s.*; and September-December, 19*l.* 10*s.*

RAPE AND SEED OILS.—*Brown Rape Oil* is rather easier, but finds plenty of buyers on the spot at 21*l.* 5*s.* closing value; little doing forward, May-August, 21*l.* 10*s.* to 21*l.* 15*s.*; and September-December, 21*l.* 15*s.* *English Refined, 22*l.* Cotton Oil.*—Crude, 15*l.* Refined, 16*l.* 15*s.* to 17*l.* 10*s.* according to make and package. Hull quiet, 16*l.* 12*s.* 6*d.* spot.

RAPE AND OIL SEEDS.—*Rape seed* quiet; brown Calcutta, ex warehouse, sold at 33*s.* 6*d.*; for shipment on c. & f. terms there are buyers of April-May Cape at 30*s.* 6*d.*, sellers 30*s.* 9*d.* Ferozepore sold at 33*s.* 6*d.* ex ship; 34*s.* asked for parcels in warehouse. Nothing passing in other descriptions. The import into London since January 1 has been 59,033 qrs., against 72,726 qrs. same time last year. The quantities now afloat from the East Indies are as follows:—

	1886	1885	1884
Calcutta to London	2,457	14,543	17,886
Bombay and Kurachie to London	—	—	160
" " Liverpool	—	—	—
Total	2,457	14,543	17,946

Poppy Seed, 33*s.* 6*d.* nearest value of Calcutta in all positions. *Sesame Seed*.—38*s.* at 40*s.* as to quality. *Niger Seed*.—Nothing doing; 26*s.* value spring shipment Hull. *Cotton Seed* quiet, and little doing. London spot, 6*l.* 2*s.* 6*d.*; March, 5*l.* 18*s.* 9*d.* Hull spot, 6*l.* 1*s.* 3*d.*; April sold at 5*l.* 18*s.* 9*d.*, and a steamer cargo same shipment at 6*l.* 1*s.* 3*d.* direct port U.K.

MINERAL LUBRICATING OIL.—English, Scotch, American, and Russian manufacture. Black from 6*l.* 10*s.* to 18*l.*; amber from 5*l.* to 18*l.*; cylinder (black, filtered, amber, &c.) from 11*l.* to 30*l.*

NAPHTHA.—Firm and unchanged.

TURPENTINE has improved somewhat, spot advanced from 30*s.* 3*d.* to 30*s.* 9*d.*, April 30*s.* 3*d.* to 30*s.* 6*d.* to 30*s.* 9*d.*, while Sept.-Dec. remained quiet at 27*s.* 3*d.* To-day's market closes easier at 30*s.* to 30*s.* 3*d.* on spot; 27*s.* Sept.-Dec. Our stock on March 22 was 44,612 barrels, against 37,784 barrels last year. No landings took place in the week ending March 20, while the deliveries during that period amounted to 1,247 barrels.

OLIVE OIL.—Advices from Naples state that holders there are firmer in anticipation of increased inquiries, principally from Russia. The stock of oil in Gallipoli is stated at about 10,000 tons, with no prospect of an increase, as the bulk of the oil mills have been closed. At Gioja the available stock of 8,500 tons is being recruited continually by fresh arrivals. In Messina there has lately been a very fair demand, especially for good burning quality, of which prices are sustained and firm, stocks of this quality being very small, and impossible to augment before April or May, as the oil of the new crop becomes clear. For current quality off Messina there is export demand from the north of Europe and England. We quote Messina prime quality 37*l.* 3*s.* 6*d.*; yellow current do., 35*l.* The London market is steady. The price for Mogador being nominally 33*l.*, while in Liverpool Malaga rules at 37*l.* 10*s.*, Sevilla at 38*l.* to 38*l.* 10*s.*, and Taranto at 38*l.* 10*s.* to 39*l.* per tun.

PALM OIL is cheaper now than it has been known before. Fine Lagos is quoted here at 25*l.*; in Liverpool sales of Lagos have taken place at 20*l.* 10*s.* per ton, and 200 tons New Calabar and Bonny have changed hands at 19*l.* 10*s.*

PETROLEUM OIL.—With reference to the recently reported discovery of petroleum in Egypt, the Cairo correspondent of the *Standard*, telegraphing on Tuesday night, says that all statements must be received, at present, with extreme cau-

tion. The actual results of the first boring are meagre, and the hopes based on the geological formations of the soil would, until further borings have been made, be premature, though many indications point to the probability of a large future supply. Considerable additional practical proof will be necessary, however, before attaching any very serious importance to the discovery. The wells are situated at the peninsula of Jemsah, on the west coast of the Red Sea, about 170 miles south of Suez, at the foot of the mountain known as Djebel Zeit, or Oil Mountain, which name indicates that the presence of oil has long been known to the natives; in fact, it would appear that explorations had previously been made, but were unsuccessful. In September, 1884, a Belgian mining engineer, M. Debay, who was accidentally in Cairo, was sent to report on the possibilities of the practical working of the oil beds. He reported favourably, and considered the experiment was worth a preliminary expenditure. Accordingly he was charged to ascertain the value of the discovery, and after carefully selecting a spot, he commenced boring at a distance of 30 yards from the sea, on January 15. After penetrating successively through gypsum, containing veins and nests of sulphur, shale, green and blue clay, limestone, and sandstone, the drill, on February 28, the day before the expiration of the period limited, fell suddenly 40 centimetres, and petroleum rose to a point two metres above the sea-level. On receipt of the news, Nubar Pasha, the Egyptian Prime Minister, left at once for the spot, accompanied by several experts, and this expedition, which has just returned to Suez, has resulted in the establishment of the following facts:—That petroleum undoubtedly exists; that the geological formation of the country points to the existence of larger quantities at lower depths; that the store of oil is generally distributed over a large area in the neighbourhood; that under existing unfavourable conditions a single source yields about two tons daily; that the specific gravity is .88; and that the spot is easily accessible from the coast, whence there is good anchorage.

The tone of the market during the past week has been dull, with prices all round in favour of buyers. Month and spot have been in fairly good demand, but there has been only a limited business forward. Prime and Standard White Pennsylvanian on spot sold at 5*1*/₂d. to 6*1*/₂d., month 5*1*/₂d. to 5*1*/₂d., September-December 6*1*/₂d. to 6*5*/₈d. In the river in course of landing there are about 2,500 barrels, afloat for London direct 43,283 barrels, and loading 16,500 barrels.

To-day's market closes easier, spot 5*1*/₂d. to 6d., September-December 6*1*/₂d.

Prices of S. W. Petroleum	1886		1885	
	New York London	7 <i>1</i> / ₂ e. 5 <i>1</i> / ₂ d.	New York London	7 <i>1</i> / ₂ e. 7 <i>1</i> / ₂ d.
	Refined	Crude	Refined	Crude
Stock on March 22	69,119 barrels 2,345 cases	..	34,378 barrels 418 cases	1,531 barrels
Landed last week	10,769 barrels — cases	..	1,114 barrels — cases	.. ..
Delivered last week	12,376 barrels 160 cases	..	9,450 barrels — cases	.. ..

QUICKSILVER is still held at 5*1*/₂. 17s. 6d. by the importer, but obtainable at 5*1*/₂. 16s. in second hand.

QUININE BARK.—The supply of bark offered for sale on March 23 consisted of 2,430 packages Ceylon, mostly twigs, shavings, and chips, of indifferent quality, 73 packages Java, nearly all in fair to fine quill well packed, 12 bales red bark, and 1,100 packages of various South American bark; the commoner sorts predominating. Nearly the whole of the Ceylon and more than half the American bark was sold at steady prices, the unit being 4*1*/₂d. to 5d. The prices paid were as follows:—*Succirubra*, natural branch, small to good bold 2d. to 9d.; chips, 1d. to 11d.; spoke shavings, 5*1*/₂d. to 1s.; root, dull and dusty, 4d., to good bright red, 7d. to 10*1*/₂d.; *officinalis*, natural branch, 1*1*/₂d. to 1s. 2d.; chips, small and woody, 3*1*/₂d. to fine rich, 1s. 3d.; spoke shavings, 7d. to 1s.; root, common, 8*1*/₂d. to choice rich, 2s. 2d.; renewed, weak, 6*1*/₂d. to fine rich, 1s. 10d. choice (5 to 5*1*/₂ per cent., Q8) 2s. to 2s. 2d. *Ledger*, *hybrid*, branch, 1*1*/₂d. to 1s. 1d.; chips, 4d. to

2s.; spoke shavings, 6d. to 1s.; root, 4*1*/₂d. to 1s. Of quill altogether 140 packages, of a net weight of 14,000 lbs., were offered, mostly hybrid and *succirubra* bark from Ceylon in good, heavy, partly silvery, partly brown quill, a few packages of South American quill, the whole selling at 1s. 1d. to 2s. 5d. per lb., and a parcel of Java bark of direct import, which consisted of the following lots, all of which sold rapidly, viz.:—50 cases, length about 3 ft. 8 in., fine stout silvery quill, partly mossed to somewhat thinner quill, about 3 ft. 2 in. in length, and less silvery, at 1s. 3d. to 1s. 9d. per lb.; 7 cases, part brown, thin, and broken, length, 2 ft. 6 in., to thin weak, and brown quill 1 ft. 10 in. to 2 ft. in length, partly broken, at 11*1*/₂d. to 1s. per lb.

The following is the present general range of prices, compared with that of last year,

	1886			1885		
South American (per lb.)—	s.	d.	s.	d.	s.	d.
Calisaya, flat	1	3	to	2	8	..
" quill	1	0	3	6	..	0
Carthagena, fair to fine	—	—	..	0	9	1
" ordinary to mid.	—	—	..	0	3	0
Columbian, good to fine	1	0	1	9	..	1
" ordinary to fair	0	6	1	0	..	0
Crown, Loxa	0	5	1	10	..	0
Grey (Huanoco).. ..	0	4	1	5	..	0
Maracaibo	0	3	0	6	..	0
New Granada	—	—	..	0	6	1
Pitayo, hard	0	3	0	10	..	0
Red, flat	2	0	10	0	..	3
" quill	1	0	3	6	..	1
Cuprea	0	2	1	9	..	0

East India and Ceylon (per lb.)—

Crown—	Twigs and branch	0	2 <i>1</i> / ₂	1	0	..	0	2	0	7
Chips and spoke shavings	1	0	1	7	..	0	4	1	2	
Root	0	9	2	0	..	0	9	1	6	
Quill, ordinary to fine	—	—	..	0	6	2	0			
Renewed	1	0	2	4	..	1	0	3	0	
Red—	Twigs and branch	0	1 <i>1</i> / ₂	0	5	..	0	2	0	7
Chips	0	4 <i>1</i> / ₂	0	10	..	0	4	1	0	
Spoke shavings	0	5	1	0	..	0	4	0	9	
Root	0	5	1	0	..	0	3	0	10	
Quill, good to fine	1	0	2	6	..	1	0	2	6	
" ordinary to fair	0	6	0	11	..	0	4	1	11	
Renewed sorts	0	7	1	7	..	0	6	1	10	
Calisaya	0	3	2	6	..	0	2	2	9	
Hybrid	0	3	2	9	..	0	2	2	9	
Lederiana	0	3	2	9	..	0	2	3	6	

Further public sales of Java bark will be held in Amsterdam on April 15, when the Netherlands Trading Company propose to bring forward 485 cases and 1,198 bales of last year's crop, subdivided as follows:—

	Cases	Bales	Cwt.
<i>Succirubra</i>	93	177	about 400
<i>Javanica</i>	39	15	" 69
Calisaya <i>Anglica</i>	23	13	" 46
" <i>Schuhkraft</i>	330	399	" 1,029
<i>Lederiana</i>	—	576	" 890
<i>Lancifolia</i>	—	2	" 3
<i>Officinalis</i>	—	16	" 23
Total	485	1,193	" 2,766

There are about 385 cases first and second class quill, and 224 packages broken quill; the remainder consists of root and dust.

Mr. Christian Boehringer, one of the late directors of the Milan quinine works, is reported to have settled at Colombo, in order to contract the purchases of bark for American firms, and an increase is therefore anticipated in the direct exports of Ceylon bark to the United States. From October 1, 1884, to September 30, 1885, these exports only amounted to about 46 tons.

SULPHATE OF AMMONIA.—Since our last report a further considerable advance has occurred; the market closes firm with brisk inquiry and scarcity of supply; the price for gray 24 per cent. being 13*1*/₂. 15s. in London, and 14*1*/₂. 7s. 6d. in Hull.

SULPHATE OF COPPER slightly dearer since our last, and now quoted at 14*1*/₂. 15s. to 15*1*/₂. for ordinary firsts.

SULPHATE OF QUININE is neglected, and quoted at slightly

lower prices, viz.: 3s. 2d. per oz. for Howard's in bottles; French (Pelletier's) rules at 3s.; Italian at 2s. 9d., and German in bulk at 2s. 7d. to 2s. 8d. per oz.

Some "knowing" parties in New York have characterised as ridiculous the figures referring to the world's production of quinine which were given in one of our late issues. They put forward an estimate of their own as follows:—

	lbs.
United States..	100,000
Germany ..	120,000
England ..	27,000
France ..	30,000
Italy ..	35,000
India ..	10,000
	<hr/>
	322,000

It will be seen that this estimate gives a much larger total, but considerably reduces the production of English and French quinine, which is placed lower than that of Italy, and is simply nowhere as compared to the States and Germany. It is clear that there must be some big mistake in one of the "well-informed quarters."

SPICES.—*Pepper* is extremely dull, and cheaper for some varieties. In sale 787 bags were nearly all bought in, the only sales being a few lots grey Singapore at 6½d. per lb., East Coast at 6½d., and very fine black Mangalore at 9d. per lb. Of white pepper nothing was sold. Our stock of this variety is 626 tons against 801 tons last year. *Chillies* have improved in price, and are now worth 39s. for good bright red Zanzibar. At auction this price was obtained for about one-half of the supply of 182 bales, while old dull quality sold at 35s. to 35s. 6d. *Capsicums* fine bright red Bombay on stalk are worth 19s. 6d. per cwt. *Pimento* dearer, with good inquiry, and sales at 2½d. to 2½d. per lb. for grey to fair, 2½d. to 2½d. per lb. for good to fine Jamaica. Whether the improvement will continue in face of the approaching summer and the ever-increasing stock (40,788 bags) is doubtful. *Cinnamon*.—A few bales low quality fetched 5d. per lb. in sale; the next auctions will be held on the 29th inst., 280 bales being thus far advertised for sale. *Cassia Lignea* steadier, sales being reported 27s. per cwt. Our stocks continue to accumulate, there being now 109,833 cases in first hand in this port. Reports from Hamburg state that considerable transactions have taken place there at an advance, the market closing firm at 56½m. to 57m. per 100 kilogrammes. The China market is also reported strong with upward tendency. *Nutmegs*.—Quiet. *Mace*.—Firm, and nearly the whole of the 28 cases offered in sale were disposed of at 1s. 3d. to 2s. per lb. for ordinary dark to fine pale Penang. *Ginger*.—Cochin meets with good demand; at firm and partly dearer rates, the latest prices paid in public sale being 65s. to 72s. for cut medium to bold; 42s. 6d. to 59s. 6d. for small, partly cut to bright cut; 30s. to 37s. for low small rough to small washed, all new crop. Malabar rough sold at 21s. 6d. per cwt. *Cloros* have advanced, and close firm, at 7d. per lb. for good Zanzibar. Our stock of Zanzibar cloves is shrinking steadily, and amounts now to 6,905 bales, against 10,672 in 1885. It is worthy of note that only 540 bales have been landed in London this year, while 4,136 bales have been taken out of the warehouse during that time. Good Penang cloves fetched 11d. per lb. in sale. Large sales of Amboyna are reported at 7½d. per lb. for forward delivery.

VARIOUS CHEMICALS.—*Brimstone*.—It is generally thought that the production of this mineral will show a decline during the present year, heavy rains having damaged the mines. The Sicilian prices for good to best seconds, delivered f.o.b., now range from 4l. 4s. to 4l. 6s. 3d. *Nitrate of Soda* maintains the late advance, although stocks are above the average; but this, it is said, may to some extent be accounted for by consumers delaying taking delivery, owing to the bad weather. The latest quotation is 117. 5s.

"I AM just as much opposed to intemperance as anybody," said Smith, "but, nevertheless, liquor rightly used is a blessing to humanity. When I was ill last year, I really believe it saved my life." "Very likely," said Brown, "but how does that prove that liquor is a blessing to humanity?"



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Percolation.

To the Chemist and Druggist—

SIR.—If Mr. Abraham will kindly look over the report of the Liverpool meeting as it appears in your issue of February 15, I think he will allow that I was justified in assuming that he had condemned percolation either in his paper or in his subsequent remarks.

There is no phrase throughout the report qualifying the condemnation expressed in the paragraph from which I quoted, nor any indication that the condemnation extended only to applying the process for preparing tincture of cayenne and such like.

[It appears that our report was not quite accurate.—ED. C. & D.]

In writing in defence of my favourite process, I had not the slightest intention of carrying coals to Newcastle, nor of galling Mr. Abraham's feelings.

I note the reason Mr. Abraham gives for feeling galled, and would just mention that somewhere about twenty years ago I wrote a paper on the preparation of tinctures by percolation for the Glasgow Chemists and Druggists' Association, and I remember that it created a good deal of interest among the members, two special meetings having been called to discuss the subject, which was then comparatively new, and the process had not yet become the "fashionable rage;" indeed, I dare say I was about the only one in the second city who had adopted it to any considerable extent.

Since that time I have improved upon my *modus operandi*, but while we may aim at perfection we do not always attain it, and I am still open to receive suggestions or useful hints upon the subject of percolation, or, indeed, any other subject.

I plead guilty to the absurdity of preparing tincture cayenne, as also tincture cantharides by percolation, but I do not follow the ridiculous directions of the Pharmacopœia. Thank goodness, while the editors may insist on a certain result, they cannot compel one to follow their directions.

253, Crown Street, Glasgow:

March 18.

Yours truly,

R. BRODIE. (126/14.)

Patent-medicine Stamps.

To the Chemist and Druggist—

SIR.—It appears to me that a withdrawal of the Patent-Medicine Stamp is what chemists should urge.

The mere alteration of the present scale will in no way relieve us of the abominable "so-called" law now in existence, by which it is impossible to define liability to duty or otherwise in many cases; consequently the imposing of fines by the Revenue Department, which is certainly most unjust.

By raising the patent medicine licence to as many pounds would be a step in the right direction. It would have the effect of placing the trade in the hands of persons qualified to deal in medicines, and exclude grocers and shopkeepers who are totally ignorant of anything pertaining to drugs and the drug trade. At the same time I should say an equally good revenue would result.

Yours faithfully,

NOREH. (126/26.)

March 19.

SIR,—I wrote some years ago to the Inland Revenue Department, asking them to perforate and gum the patent medicine stamps; and received reply, "the proposal could not be entertained, as it would interfere with and increase the cost of manufacture." I have mislaid the original letter or would have sent it you, but the above is the substance. For my part, after considerable use of the stamps, I would now prefer them *perforated* and ungummed, as I find by using dextine they adhere better if freshly pasted.

Elland, March 20.

RIVER CALDER. (127/5.)

SIR,—I have had occasion of late to send some labels to the Board of Inland Revenue to see what were liable. Enclosed are three; why one should be free and the other two require stamping is somewhat perplexing.

[Not liable.]

QUININE AND IRON TONIC.—Enriches and purifies the blood, strengthens the system, and imparts tone and energy to the digestive organs. This preparation may be administered with the greatest advantage in all conditions indicating tonic treatment, and will be found a most agreeable and efficacious combination of those approved and valuable remedies—Iron and Quinine. *Dose*—For an adult, one table-spoonful in a wine-glass of water, twice a day. For children, from four to nine years of age, one tea-spoonful; above that age, two tea-spoonfuls, in half a wineglassful of water, twice a day.

[Liable.]

CENTRATED FLUID EXTRACT OF TARAXACUM OR DANDELION.—This preparation contains all the active properties of the dandelion, in a convenient, agreeable, and efficient form. It is, in every respect of medicinal virtue, equal to the fresh decoction, and superior to it, inasmuch as the dose being considerably less in bulk, no oppression of the stomach is produced, which very frequently prevents the patient receiving the full benefit of the medicine. *Dose*—Children, from half to one tea-spoonful. Adults, from one to two tea-spoonfuls, in a little water, two or three times daily.

[Liable.]

AROMATIC FAMILY APERIENT MIXTURE.—This mixture will be found an extremely useful family medicine, and is much more pleasant and efficacious than the ordinary black draught. The aromatic ingredients render it less nauseous to the palate, improve its action, and preserve its qualities unimpaired for any length of time. *Dose*—For an adult, three or four table-spoonfuls; and for children, one or two table-spoonfuls, according to age.

As the Act stands at present chemists are unable either to recommend by label or handbill unless each is very cautiously arranged, or unless stamped. I cannot say I am in favour of having the price of the medicine stamp reduced. It seems to me that it is not so much a reduction of the price of the stamp that is wanted as the removal of certain restrictions placed on the wording of the labels.

Would it not be somewhat advantageous to the chemists generally if the Act were so altered that retail transactions might be placed on a different footing to those of wholesale? Thus—medicines for internal or external use prepared and put up by pharmaceutical chemists and registered chemists and druggists may be retailed personally or by those in their employ on the premises, where so prepared and put up, having a label describing its nature and its adaptability to certain ailments, with simply prepared and sold by — (the name in the possessive case at the top of the label to be dispensed with), such to be free of duty. Medicines, however, passed by the manufacturers into the hands of other persons to be retailed on premises other than those where so prepared and put up (thereby making it a wholesale transaction), to be compelled to have the name in the possessive case at the top of the label, and to be liable in small or large quantities. I have no doubt to some there will appear an inconvenient side to my suggestion; I think, however, we ought to try and protect ourselves from the restrictions and the encroachments to which our calling is being subjected.

I am, yours faithfully,

Greenhithe, March 22.

E. J. Cox.

SIR,—If it is not too late I should be glad to raise my humble protest against the lowering of the stamp duty as now imposed; and yet with many of my brethren in the trade do think three-halfpence on sixpence is a very heavy tax for

the Government to wring from the poor chemist. Will you allow me to make a suggestion that where, as in the wholesale manufacture of patent medicines, packets are made by hundreds of thousands and large incomes derived from them, the stamp duty might remain as it is; but that where the sale is only retail and from the maker's own shop, a penny or halfpenny stamp would be a boon and an encouragement to many a retail chemist. This principle of a distinction between wholesale and retail dealers is one already recognised and acted on by the Excise authorities, and I do not think would be unjust to any one. I am not afraid of competing with the grocer, but the retail shopkeeper is by the advertising firms so cut out in everything that used to be profitable, that I am compelled to sign myself one of the

March 24.

VERY HARD PUSHED.

SIR,—We began this controversy by discussing the desirability of a reduction of the patent medicine stamps, but, according to some of your correspondents, we ought to end by asking the Government to kindly allow us, as a special favour, to pay more tax than we do at present. This is novel, to say the least of it, and I fancy that these correspondents will have to use some very clever arguments to convince the majority of your readers that by paying more tax they will make more profit.

The objectors to the reduction do so on three or four different grounds, some of which are antagonistic, and all of which, to me, are based on a false foundation. "Let well alone" wants to pay 2*l.* 2*s.* instead of 5*s.* but he gives no reasons; presumably he can pay that amount, and thinks some of his neighbours can't. Mr. Higgs, Mr. Wheeler, and "Harder Times," seem each to have had a nightmare, in which hucksters' shops and 2*½d.* medicines have been the terror. Mr. Wheeler says, "I should advocate an increase in the price of stamps if I had to contend with the hucksters' evil influence." I suppose a typical huckster deals in anything from clothes-pegs to fat bacon, keeps a donkey, &c., and if that be so, I have no such thing to contend with, but I have a few grocers' shops and a co-operative store, each of which keeps a stock of various drugs, cough mixtures, &c.; but I have something even worse than these, and worse than hucksters, and that is the fearful poverty of the inhabitants, whose whole life's battle is, and has been for years, for "food," and who are unaware of the existence of most articles—in our business—that townspeople consider necessities of life. I have little patience with the idea that directly opposition lifts up its head we are to rush to the Legislature for protection, like a baby to its mother. The House of Commons has no sympathy with such ideas and will give no assistance to them. It seems to me that small traders are feared too much. I admit that they do us an injury, so do a good many other things that we have, and shall have to put up with. But I don't admit that the *½d.* stamp would flood the market with 2*½d.* medicines, and besides, if it did, the chemists would have the same privilege. The hucksters now keep as many drugs as they can; if the *½d.* stamp came into existence, they might advertise a 2*½d.* article if they had the ability, or others might for them, but in such case the chemists can do exactly the same thing, so that they would be on exactly the same level as now. It is useless trying to find refuge in a monopoly. The public will not nowadays admit, or encourage monopolies, except in quite exceptional cases, and our monopoly only extends to a very few articles; and the public is quite *côte* enough to see that a monopoly always raises the price. In the name of common sense don't let us allow that the intelligence and technical knowledge of the chemist is to succumb to the genius of the common huckster. Our true policy, in my opinion, is to so conduct our businesses that we may gain the confidence and sympathy of the public, and if we have that we can get on, and defy all the parasites that exist; and if we have it *not*, then all the monopolies in the world will not keep us on our legs. This is to be done by treating your customers honestly and conscientiously, and avoiding surreptitiously substituting an article that you know they don't want, because it is higher in price or because you get more profit on it. Even the dullest of customers will see the selfishness of such dealing in time, and then it will be his turn.

Increase the tax, and what is the consequence? The

"cutter" and all his tribe at once advertise to the public that the chemists are trying to put them down, because they sell too cheaply, by which means they put you in a very unfavourable position to the public. Besides, you would not touch your most powerful enemies, the cutters and stores, with their numerous branches.

With regard to Mr. Phillip's letter in your last, I presume, of course, that he considered himself serious when he wrote it. It is a "poser." He wants to take vengeance on all patent proprietors by boycotting their goods, and having set himself the gigantic task of extinguishing Holloway, &c., it is perhaps natural that he should not stoop to cold common reason. Mr. Phillips ought to know that the great patents do *not* owe their popularity to the tender nursing of chemists, but solely to the immense sums of money spent in advertising them by their proprietors, and that chemists have *not* kept and pushed them, because of any friendliness or patronage to the proprietors, but simply and solely for profit, and because there was a demand for them. In fact, the patent proprietors have little to thank the chemists for, seeing that it is notorious that chemists make substitutes of all the saleable patents they can. And what would be the effect of trying to snuff out all the patents? It would be just as wise to suppose that, if you stick a pin into the hide of Jumbo, you would thereby draw his life's blood, as to suppose that any combination can stop the patent trade. The result would be that the cutter, &c., would get *all* such trade, instead of a part as at present, and would thereby increase his trade in other things as well, such as cod-liver oil, &c. Meanwhile the chemist would be pushing his own preparations in lieu of patents, until, if he should be fortunate enough, the popularity of one of them might perchance extend beyond his own constituency, when the chemists not keeping any patents but their own, he is compelled to appoint those very detestable cutters, who would then have the whole trade in patents, to sell his preparation. Don't let me be told that Mr. Phillips would not supply the cutter with it. Such a statement would be as nonsensical as the whole proposal itself. If he is a business man he *would* supply him. The whole scheme, in fact, is false to the very core.

Let me conclude by repeating that I am still in favour of the proposed reduction, by apologising for taking so much of your valuable space, and by sincerely thanking you, as so many have done before, for making the journal a weekly instead of a monthly one.

Yours, &c.,
H. ROBINSON.

Baldon.

H. C. B. writes:—FRIENDS, what a bother you are making about the "Medicine Stamp;" do let it alone, and mind your own business, and if you want the "straight tip" from one who has been through the fire, listen. If you are the happy possessor of any recipe that seems to take well, and of which you have had good reports, just go to some expense and trouble in getting such remedy up in first-class style, not as a patent medicine, but something like Hawley's counter-adjuncts. Begin with one article; give it your attention, and use the best possible materials; get it up richly and not *gaudily*; obtain the names of chemists in your neighbourhood or anywhere, write them and ask if they put up anything to correspond with your preparation (enclose a wrapper or dummy), and if so, if they will exchange with you at *wholesale rates*. The advantages of this idea must be apparent to each worker. Every chemist knows how much easier it is to sell the preparations of another than his own, which accounts for the desire to brand preparations with the name of some mythical company, and put the manufacturer's name on as "sole agents."

North British Branch.

To the Chemist and Druggist—

SIR,—The concluding words of your correspondent "Scotus" have awakened in me a *cui bono* in regard to this controversy, and as I have a vote, which I usually exercise, I may be pardoned if I ask enlightenment on a point which I know has occurred to others, who are not in the inner circle either of London or Edinburgh. I judge from reports that the council of the North British Branch has, from a Bloomsbury point of view, ceased to exist, and yet I find that it had

very important functions to perform. Take, for example, that of selecting the Scottish Examiners. I should like to know on what plan these are to be hereafter appointed. In these days of the popularity of the principles of representative government it is but natural that we should look with distrust on what looks like dictatorship, not to say despotism, somewhere. Where has the consideration for minorities been shown throughout the dispute? Have we the whole body of the London Council to thank, or is some Pharmaceutical Parnell responsible for what seems latterly to have developed into intentional insult? It appears that the Scottish Assistant Secretary was appointed against all precedent, without consultation with those gentlemen (I use the word in this case advisedly) with whom he would continuously be thrown in contact, and then the "assistant-secretary" (for whom personally I have the greatest respect), a London official in reality, was, if I understand the letter of "Scotus" aright, made the medium through which the first hint of a break in the custom of using the rooms in York Place, was made to the North British Council. I hope that I am mistaken, but the published evidence seems to point the other way. This treatment, no doubt, explains much of the bitter feeling which now exists, and the spirited rally of Scotsmen from all parts of the country in St. Andrew's Square when it became known that the doors of the Society's house would not open as of yore.

It is not expected that one should have a kindly feeling to another up whose steps one has often gone as to one's own house, and who one day, suddenly changing his tune, commissions his representative to slam the door in one's face, and so doubtless the *nemo me impune laesbit* is now rising in many a Scottish breast against the London Council, President, Secretary, and all, quite irrespective of the origin of the controversy. In view of the elections, I should like to have these doubts cleared up, and also hope for light as to whether the powers that be really wish to emasculate our nationality. Cosmopolitanism is all very well, but not only the sharp angles of character, but character itself, may be obliterated. With a healthy national feeling, the mother of honourable emulation, we shall be better Scotsmen, better Englishmen, and better men, and standing united, shall be a power which may be felt; for assuredly neither the Society nor the trade requires internal dissensions to further weaken its influence in imperial legislature.

SCOTORUM.

Unqualified Assistants.

To the Chemist and Druggist—

SIR,—I, for one, quite agree with the letter of "A Chemist and Druggist" in the *Daily News* of March 15, and fail to see the purport of the letter of "One of the Great Unqualified," except it is to mourn the loss of some scheme to get through the Minor without any trouble. It is the first time I have heard it an essential for the Minor qualification to have a father behind; my experience teaches me very different, neither did it take years to accumulate sufficient money to enable me to see my name amongst the successful. I passed the dreaded ordeal without spending one penny on a lecture, and the first time I saw Bloomsbury Square was on the morning I made my appearance before the examiners. As for the cost, well, I may say it was but trifling. Fees, books, and railway fare altogether did not absorb one-half of a quarter's salary. And surely, if one can do it, what obstructs another? Time and patience with a little pluck and energy are all that is required. What "One of the Great Unqualified" would demand from an apprentice, he himself seems afraid to try for. I am sir, yours truly,

QUALIFIED, BUT UNDERPAID. (64/127.)
Wolverhampton, March 21.

SIR,—I quite agree with your correspondent with reference to "Unqualified Assistants." I think that the Pharmaceutical Society of the present day exercises an undue influence over chemists and druggists by not leaving apprentices more in the hands of their masters, who ought to be allowed—if they think them qualified and useful men as chemists and druggists, having learned their business thoroughly—to give them a certificate to that effect. This would be the means of

saving many clever and useful young men from the ruin which a great many of them fall into through taking their failure at the Bloomsbury examinations to heart, and throwing away an otherwise useful life in idleness. It often happens that young men fail because they have not the strength of brain to carry them through an examination such as the Pharmaceutical Society require; others who pass die shortly after through nothing else but weakness from overstudy. I know a case of a young man who passed his examinations at Bloomsbury Square. Shortly after he took a fever and had not strength to pull him through, having studied so hard, consequently he died. If the Pharmaceutical Society were to simplify their examinations more, they would be considered more "Amicus humani generis."

Yours truly,
CHEMUS.

Westmoreland, March 23, 1886.

Ancient Sucking Bottles.

To the Chemist and Druggist—

SIR,—In Locke's "Essay on the Human Understanding," written in the year 1688, I find the following sentence:—"Who perceives not that a child certainly knows that a stranger is not its mother; that its sucking-bottle is not its rod?" My object in writing is to ask you, or any of your numerous correspondents, what a child's sucking-bottle was like at that early period.

J. M. NEWBOULD. (127/41.)

174, Lamb Lane, Bradford, Yorks: March 22.

Sale or Return.

To the Chemist and Druggist—

SIR,—On page 209 of current issue of THE CHEMIST AND DRUGGIST I notice the case of Jacobs v. Harbach. I may say I read it with great interest, for I was unfortunately in a position somewhat similar to that of the defendant. The plaintiffs sent me just such a circular as they did Mr. Harbach, and I allowed them to send me some of their preparations, which were never enquired for. Unfortunately "Sale or return. Six months" escaped my memory, and so I had to pay. The application for payment and threat of legal proceedings was on a *Graph* circular letter, only the amount and dates being filled in with pen.

Yours faithfully,
X. (127/24.)

[There was nothing illegitimate in all this. Everybody has a perfect right to push his trade with whatever ability and energy he may possess, and may quite fairly enforce contracts which have been entered into. It is as well, however, for the trade to be reminded that contracts ought to be regarded seriously.—ED. C. & D.]

A Curiosity in Mortars.

To the Chemist and Druggist—

SIR,—Can you or any brother chemist kindly enlighten me as to the probable origin of a large and handsome bell-metal mortar in my possession, which was purchased by my father some sixty years ago at a sale of the effects belonging to a surgeon?

It is ornamented with moulding, raised scroll, royal arms, and inscription, "M : Lyde : Pharmacopela : 1697 :" Circumference at top, 50 inches; circumference at bottom, 34 inches; depth, 14 inches; weight, 1 cwt. 2 qrs. 3 lbs.

The metal it is composed of has been pronounced by eminent bell-founders to be of the finest possible quality.

I am, dear sir, faithfully yours,

J. R. PHILPOTT. (127/43.)

Newnham-on-Severn, March 22.

Corn Solvent.

To the Chemist and Druggist—

SIR,—The perplexed firm who, in your issue for March 20, 1886, would seek for a solution of their difficulty, as well as of their solvent, will find the following method a more professional way of preparing it; and as the new B.P. so fre-

quently makes use of the word "about," I may say that this form is "about" the same strength in salicylic acid as the formula of the perplexed parties. It only surprises me that any firm would expose themselves to the power of another by not making their own proprietary articles right through, although this salicylic miraculous cure is so well known that it cannot be called a private formula:—

Pyroxylon	..	..	..	..	..	..	1	oz.
Æther, meth.	..	..	..	..	..	..	9	"
Spt. v. m.	..	..	..	..	..	..	3	"
Bals. Canad.	..	..	..	..	..	..	2	"
Castor oil	..	..	..	..	..	..	1	"
Ext. cannab. Ind.	..	..	..	..	..	..	5	drs.
Acid salicyl.	..	..	..	..	..	..	1½	oz

First make your own soluble cotton, or obtain it from a good maker, and pour half the spirit on it in a bottle, and give a shake; then add the ether and set aside, or shake until dissolved; in this dissolve the bals. Canad. and oil; then the extract, and lastly add the acid, mixed with the remainder of the spirit.

Yours, &c.

40 Westland Row, Dublin.

F. G. EARL. (127/28.)

23/127. W. B.—"Perplexed," I think, should add more s. v. meth., and less ether, or use a collodion made from paper pyroxylene, which is more limpid; also discard the brush, and use in place of it a piece of white felt fastened on the cork with a small pin, preferable for economy and time.

Paraffinum Molle.

To the Chemist and Druggist—

SIR,—I am of opinion that you are too sweeping in your denunciation of the mixture of hard and soft paraffins as an ointment basis. I find that ointments made in the proportion of one of hard to three of soft paraffin can be, by proper manipulation, obtained as smooth as others prepared with Ung. Simplex or even some samples of lard. Certainly they are not of the jellylike smoothness of vaseline itself, but that is no reason why they should be condemned, seeing that they melt completely at the temperature of the body. The proportions of one of hard to two of soft paraffin do not yield so elegant a preparation, but with a little rubbing it can be made tolerably smooth. Perhaps soft paraffin alone of a firmer consistency and higher melting-point than the official might be an improvement, but it is too much to say that the present official mixture, regardless of the quality and melting-point of the ingredients, is pharmaceutically a total failure.

Yours respectfully,

C. A. MACPHERSON.

126/18. Fixed Stoppers.—For glass stoppers fixed in bottles there is no remedy so effectual and so universally successful as this: Boil some water in a kettle, and while boiling let pour slowly on the outside of the neck of the bottle, turning it round and round to ensure that all the neck gets thoroughly and equally warmed through. The glass of the neck of the bottle all around the stopper is expanded by the heat, and the stopper is bound to be loosened.

W. H. C.

[It would be well to try this on a comparatively worthless bottle first.]

A Contribution to the History of Pharmacy.

A CORRESPONDENT from the dim and distant future sends us a copy of some curious record he has found in the course of some remotely-recent excavations. He writes:—

The following remnant was found buried five feet below the ground in a town in the south of England in the year 5000. It is supposed to be of very ancient date, as the paper is very brown, and in some places the ink is almost obliterated. It is as follows:—

BURIALIS BY-LEGUM.

It came to pass in the days of the Queen Victoria that there dwelt in the town called London, which stands on the banks of the Thames, a man named Ca hc. Now this man had exceeding great possessions. He was not a dealer

in cattle, nor in fine linen, but he was one of those who buy and sell tinctures, infusions, decoctions, and other things by which they can heal (?) a man of his disease.

Now this man went up to the synagogue to take counsel of his brethren, and they said, "Lo! we are not as other men are; let us make unto ourselves by-laws, by which we may govern our brethren who are ignorant and are as fools in our sight."

So they sat in their synagogue that day and did make by-laws.

Now when the number of days was fully accomplished they did give their by-laws to the rulers in high places, that they might consider them and ponder them in their minds.

And it came to pass in the new moon that the wise men went again to their synagogue to take counsel one of another, and the scribes of the rulers in high places did send a letter to the wise men, in which they did scorn them and did reject their by-laws.

And when the wise men saw this, they were exceeding wroth amongst themselves, and did say, "Let us not show this to our brethren, lest they laugh at us, and we be covered with shame; rather let us hide the writing of the scribe."

So they did bury the writing and the by-laws, and the name of that place is called Bloomsbury to this day, for there the by-laws did bloom and were buried.

And it came to pass that the scribes who did keep the records of the trade did take spades, and they lifted up the writings aforementioned, and did write them in their records, and did show them to the people. And the wise men were covered with shame and degradation, and great was the fall thereof.

Dispensing Queries.

W. S. asks what should be used for the first ingredient in the following prescription :

Liq. taraxaci	..	..	..	..	..	3 <i>j.</i>
Ammon. chlor.	..	..	..	..	..	3 <i>iss.</i>
Aq. ad	..	..	..	..	..	3 <i>viii.</i>
Mix.						

Now that there is an *Ert. Taraxaci liquid.* in the British Pharmacopoeia it should be dispensed—"liquor" being the interpretation of "Extractum liquidum."

I should be pleased if some of your correspondents will give their opinion as to the correct appearance of this mixture :—

Soda salicylat.	..	..	..	..	..	3 <i>j.</i>
Tinct. buchu	..	..	..	..	..	3 <i>vj.</i>
Decoct. cinchona ad	..	..	..	..	..	3 <i>viii.</i>

I obtain a very unsightly mixture, with a whitish flocculent precipitate rising to the top; it has been made by another dispenser with a brownish sediment and a fine precipitate of apparently higher density than mine, but which does not settle nor rise to the top.

[The whitish flocculent precipitate we take to be an alkaloidal salicylate, and the difference between the two mixtures may be due to difference in the cinchona, or in the decoction used. Sodium salicylate also varies, sometimes being slightly more alkaline than it should be. This would account for the behaviour of the second mixture.]

129/22. J. S. M.—**Suppositories.**—To prevent adhering, smear the mould with soap liniment, and chill the mould with ice if possible.

P. W. (Salop).—Your veterinary question will be answered elsewhere. Terebene is preferably administered on loaf sugar, the sugar being allowed to dissolve slowly on the tongue. In mixture form it should be emulsified with acacia similarly to turpentine; extract of liquorice and syrup will best cover its taste.

126/42. J. G. Dickinson.—**Kurako Nuts.**—These are the seed of *Anacardium occidentale* or cashew nut; not the Oriental eashew nut or marking nut (*Semicarpus Anacardium*). The rind of the nut affords a juice, which is so acrid

as to fit it for reducing such excrescences as warts. The nuts are eaten in the raw state sometimes, but preferably and generally after roasting; they contain a large amount of bland oil, which is used in India for culinary and burning purposes.

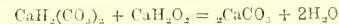
126/57. Reader.—**Griffith's Notes** on B. P. 1885, not yet published. **Farre's Abridged Pereira** is published at 25s.

125/64. J. M.—**Oil of Briek and Oil of Spike.**—The latter is *Oleum lavandulae*; the former used to be prepared by soaking a red-hot brick in olive oil; olive oil mixed with a little Huile de Cade, to give it an empyreumatic odour, would be a good substitute.

125/74. Floroline.—**Wintergreen Oil** should be used very sparingly, and along with lavender, rose, or bergamot. It is a difficult odour to blend in large quantities.

127/67. Subscriber wishes formula for "*Isaac Milburn's Oil*," largely used in the north of England. Can any reader help?

Cake. “**Hard Water.**—How can the lime be removed so as to soften the water without injuring it for drinking purposes?” Temporary hardness, due to calcium carbonate in solution, is removed by adding slaked lime or lime water in proper quantity, so as to effect the change here represented:—



The quantity necessary for your purpose you must determine by experiment.

128/2. Subscriber. **Liq. Ammon. Aeet. Cone.**—The B.P. formula for a 1 to 5 solution is (as now modified) as practicable a one as you can have.

127/37. Associate. **Food and Water Analysis.**—Mr. Winter Blyth's work on *Foods: their Composition and Analysis* (C. Griffin & Co., 16s.). This includes water analysis. You should also acquaint yourself with Wanklyn's methods (*Water Analysis*, 5s.), *Homœopathic Pharmacy and Dispensing*. The former you will get from the *British Homœopathic Pharmacopœia*, and the dispensing from THE CHEMISTS' AND DRUGGISTS' DIARY, 1885, which is the only published treatise on the subject.

127/25. C.—**Tobacco Sheep Dip** is made from tobacco juice, alkali, and soap. Can any reader favour with details of manufacture?

128/4. Petroleum Oil Pomade.—**Pro Bono Publico** writes:—A letter appeared in last week's issue in which the writer mentioned that he made a capital pomade with some petroleum oil costing 1*s.* 6*d.* per gallon; as this is a very cheap way to produce pomade would your correspondent kindly give formulae for pomade, and state where the petroleum oil mentioned could be purchased.

[The oil is largely used for lubricating purposes, and may be had with or without "bloom" (fluorescence). Price varies with state of refinement, but on this point communicate with A. B. Fleming & Co. (Lim.), Caroline Park, Edinburgh, who are makers (DIARY, 1886, p. 105). Four parts of the oil and one of hard paraffin are the proportions for pomade.

A Lucky Reader writes:—“It may interest your readers to know that I found a sovereign amongst my quassia in the stock drawer the other day. Lucky find in these hard times. I diligently looked for more, but Providence had only provided one for me. Wonder if any of your readers have had a similar experience.”

CRYSTAL PALACE BOND'S GOLD MEDAL MARKING INK.

(Prepared by the Daughter of the late John Bond.)

PRICES
TO SUIT
ALL.

Crystal Palace Brand, blue wrappers, 6d. and 1/- 30/- and 60/- per gross respectively.
John Bond & Co.'s ditto, ditto 6d. and 1/- 24/- and 48/-
Handsomely mounted on Showcards and in Desk-shape Counter Boxes. "

Elaborate Bent Glass Novelty Show Cases Given Away by ordering a gross Crystal Palace Brand.
The Genuine. The Leading. The Saleable.

PRICES
TO SUIT
ALL.

WORKS: 75 SOUTHGATE ROAD, LONDON, ENGLAND.

ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

Specially prepared for Quinine Wine, does not deposit, will keep good in any Climate, and well adapted for Export Trade.
Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue.

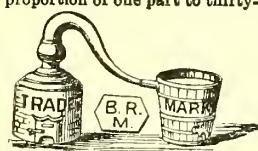
CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the *United States Pharmacopœia*.

	Per lb.	Per lb.	Per lb.	Per lb.	
Aqua Anethi, Concent.	4/0	Aqua Cinnam. Ver. Concent.	6/0	Aqua Foeniculi, Concent.	4/0
" Anisi,	4/0	" Cassiae	4/0	" Menth. Pip.	4/0
" Camphorae,	4/0	" Flor. Aurant.	8/6	" Rose	8/6
" Carui	4/0	" Flor. Sambuci	8/6	" Ang. Con.	6/0
				" Rose Virgin	10/6
				" Virid.	4/0

The above are put up in Bottles of $\frac{1}{2}$ lb. or 1lb. and upwards, each of which has the Inventor's Protection Label over cork.

Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Liverpool; Woolley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; Raimes & Co., Duncan Flockhart & Co., J. Mackay & Co., T. & H. Smith & Co., Edinburgh; Fogritt, Thirsk; Goodall & Co., Leeds; Southall & Co., Birmingham; Slinger & Son, York; McKesson & Robbins, New York. Special terms for large quantities may be had from

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HEWLETT'S MIST. PEPSINA CO. C. BISMUTHO.

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia, more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgic gastric pain following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with great success in alleviating pain and vomiting.

In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, it is of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epigastrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerve-centres. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, antidiyspeptic, and tonic, in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, connected with atony of the visceral muscular coat, the Mist. Pepsina Co. c. Bismutho is a very valuable remedy. In the *exhausting purging of Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked and appreciable effect.

Price (in England) 10s. 6d. per pound.

Physicians will oblige, when ordering Mist. Pepsina Co. c. Bismutho, by writing Mist. Pepsina Co. (Hewlett's).

Packed (for Dispensing only) in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

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"This combination of Messrs. HEWLETT is one which has been extensively tested, and with good results. It is justly popular in the profession as a very valuable and effective combination. It serves not only to improve aperients, but to lessen the gastric pain and to facilitate difficult and painful digestion, without setting up any evils of its own. It is a very good crutch for persons of weak stomach to lean on."—January 15th, 1881.

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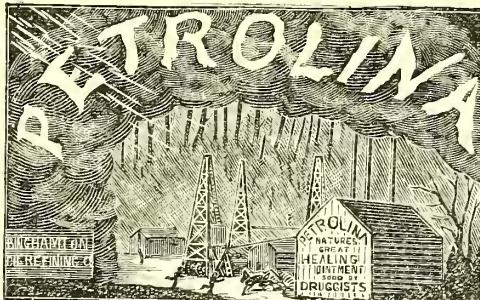
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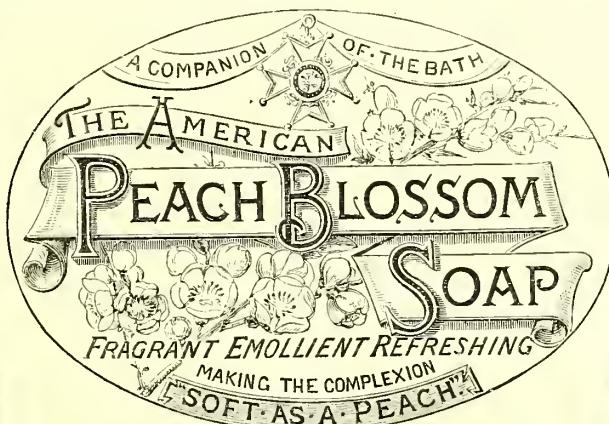
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Perfectly Soluble, Reliable, and Effective.

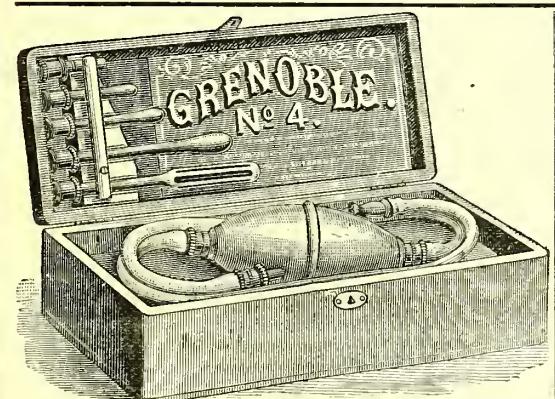
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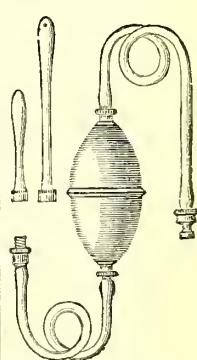
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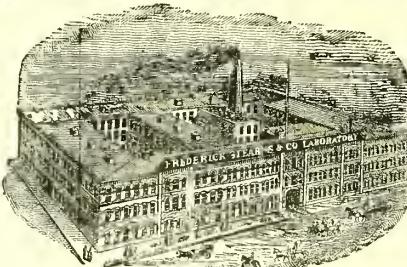
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MANUFACTURING PHARMACISTS. POPULAR NON-SECRET MEDICINES.

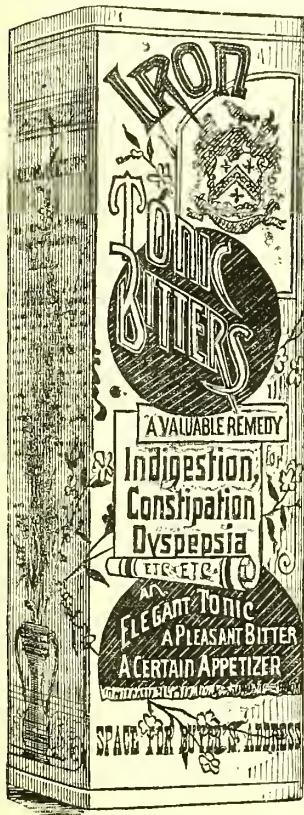
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Under the title of "Popular Non-Secret Medicines," we introduced, in 1876, a line of ready-made medicines and articles, avowedly to supplant patented and secret medicines. The list comprises staple things, like Sarsaparilla, Condition Powders, Cathartic Pills, Liniments, Cough Syrups, Worm Medicines, etc., to simulate the forms and sizes of like popular patented goods; to print the working formula on each package; to make them in large quantities, at a saving in cost of material and labor; to sell them to the RETAIL drug trade exclusively, to print each buyer's name and ad-

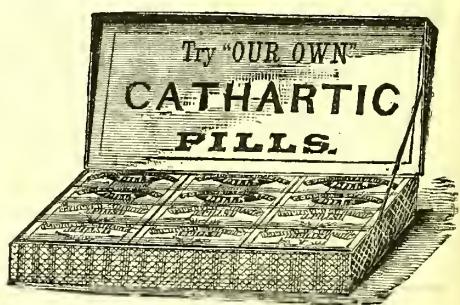
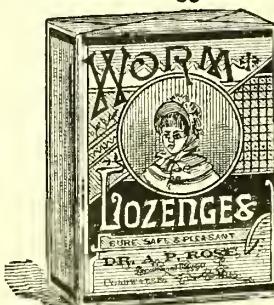


dress on labels and wrappers in place of ours; to sell them on a close margin of profit as manufacturers; to use good glass, velvet corks, excellent printing, elegant engraved and tinted wrappers; to adapt the styles, sizes and prices to meet the popular wants; to furnish the retail druggist (who has few appliances himself) means to drive patent medicines out of his sales; to enable him to make the profits himself which otherwise go into the pockets of patent medicine manufacturers; to replace quack and secret nostrums by medicines of known composition and value.

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Illustrated Descriptive Price List of the Popular Non-Secret Medicines, Toilet and Domestic Articles, is now out. It contains 96 Pages and 196 Engravings. Is Furnished to Retail Druggists FREE.

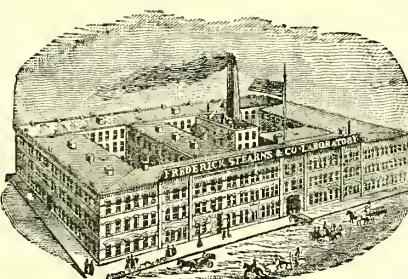


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FLUID EXTRACTS.....	582
PILLS (Sugar-Coated), Porous, Soluble....	685
PILLS—Soft masses, gelatine capsuled.....	622
ELIXIRS (Medicated) of fine flavor.....	198
EXTRACTS—Soft, pilular and powdered.....	710
RESINOIDS—Concentrations.....	220
OINTMENTS—With Saxoline basis	137



	No. kinds.
PURE POWDERED DRUGS—In cans.....	810
EFFERVESCENT CRANULES.....	62
MEDICATED LOZENCES.....	173
SUPPOSITORIES.....	422
MEDICATED SYRUPS.....	312
MEDICATED TINCTURES.....	413
MISCELLANEOUS.....	over 10,000

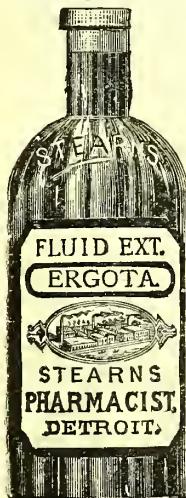
Our Laboratory—rebuilt in 1880-1, and in 1883 again enlarged to full double its capacity—is the largest of its kind in the world, and is filled with all known appliances for accurate, rapid work and economy of labor.

Branch Laboratories—FREDERICK STEARNS & CO., WINDSOR, CANADA.
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STEARNS' NON-PATENTED COLD-FORCED PERCOLATES.



ADVANTAGES GAINED.—No heat is employed; the volatile essences are retained unaltered. A solvent of unvarying specific gravity is used throughout the process. The finished and saturated product more naturally represents the drug—tested by appearance, taste and odor—than do the ordinary fluid extracts.

A special feature of interest, and to aid retail druggists using fluid extracts in dispensing, is the new back or descriptive labels on the fluid extracts, which furnish instructions for making syrups, tinctures, infusions, etc., from the fluid extracts direct, thus obviating all need of special formula books on the subject. The label contains the ordinary names of each drug, its general properties and uses, full formula (and antidotes, if poisonous), making it very valuable to the dispenser. The label is surrounded by a handsome red border. The front label on each bottle simulates the shop furniture label—has gold border and looks very handsome on the shelf.

PURE POWDERED DRUGS.



PURITY.—We warrant our powdered drugs to be of good quality, to be powdered with care by steam power, in machinery of improved design and to be sent to our customers free of adulteration.

HOW PACKED.—Our powders are put up in pounds—elegant-shaped shelf cannisters; air tight, covered with handsome tinted wrapper, with label in gold, white and black, similar to a shop furniture label, with also a back label in crimson, white and black, upon which is given the description, properties, dose and uses of the drug with formulæ. These goods may also be had in five-pound tin cans, in ten-pound tin cans, and in bulk in paper or wood, under our guarantee label.

* New Catalogue No. 83—Illustrative and Descriptive Price List of Pharmaceutical Products, giving Strengths and Doses. Over 14,000 Items; 874 Illustrations. Free on Application. Correspondence solicited with Retail Druggists in all parts of the World. *

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SAXOLINE, our name for a natural petroleum jelly (now official as Petrolatum, U. S. '80), forms an excellent basis for ointments, because it *never becomes rancid*.

STYLE.—These ointments are put up in airtight (new style) glass jar, price including jar. It forms an elegant shop shelf jar, and when empty may be used for other purposes.

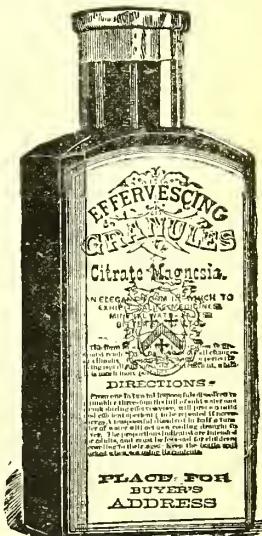
Saxoline itself, plain carbolated, camphorated thymolated, arnicated, etc., is furnished in pound tins, in five, ten and twenty-five-pound tins, in one, two and four-ounce vials, at remarkably low prices. Warranted equal in every respect to the high-priced proprietary articles. May be had at any melting point from 105° F. (usual) to 120° F.



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A form well adapted to the exhibition of saline aperients, mineral water or bitter salines of alkaline or metallic salts found in mineral springs, and of remedies which are aided by the sedative action of carbonic acid or the refrigerant properties of vegetable acids.

Put up in two sizes, bottles that hold six and three fluidounces, cobalt blue flint, metal caps, each half dozen or one dozen in cartons. All of these may be had in bulk in one-pound to ten-pound cannisters, and if in larger lots special quotations will be made.

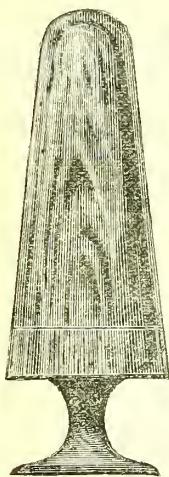


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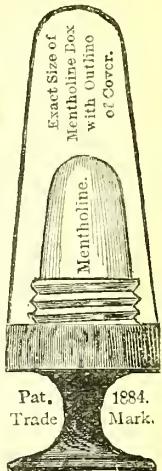
It is issued postpaid to customers regularly; but as often as four times a year a copy is mailed to every druggist in fair rating in the United States, West Indies, Central and South America, Mexico, Africa and Polynesia.



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The Original
Absolutely Pure
Menthол Cone.



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"THE TRUE JAPANESE HEADACHE CURE."

Guaranteed to be only the finest Japanese Menthol, entirely free from oil, Whiter, Firmer, more Crystalline than any other brand, and absolutely pure, making it more valuable for all the purposes for which ordinary Menthol is used. Its hardness and solidity specially fits it for sale and use in hot climates, and also makes it the cheapest Cone to be used in any climate, as it lasts longer than any other Cone. This curious remedy, used in Japan for ages, instantly relieves and removes Nervous Headache, Toothache, Earache, Faccache, Faintness (from over crowded churches, theatres, &c.), Catarrh, or cold in the head, and many other nervous aches and pains; it also certainly relieves Neuralgia, Rheumatism, Sciatica, and other nervous affections; and has a tendency to produce refreshing sleep.

USED BY SIMPLY RUBBING.

Taken internally it relieves Flatulence, Nausea, Colic, and other pains, and is good in cases of Sea-sickness.
No other Remedy in the World so Valuable (costing more than Quinine), so Pure, and so very useful in so many ways, is sold for 1s. per box.

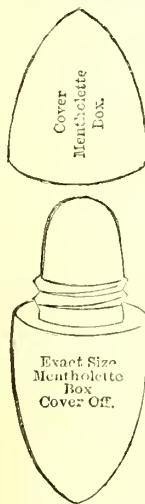
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Guaranteed to be only the finest Japanese Menthol, entirely free from oil, Whiter, Firmer, more Crystalline than any other brand, and absolutely pure, making it more valuable for all the purposes for which ordinary Menthol is used. Its hardness and solidity specially fits it for sale and use in hot climates; and also makes it the cheapest Cone to be used in any climate, as it lasts longer than any other Cone. This curious remedy, used in Japan for ages, instantly relieves and removes Nervous Headache, Toothache, Earache, Faccache, Faintness (from over crowded churches, theatres, &c.), Catarrh, or cold in the head, and many other nervous aches and pains; it also certainly relieves Neuralgia, Rheumatism, Sciatica, and other nervous affections; and has a tendency to produce refreshing sleep.

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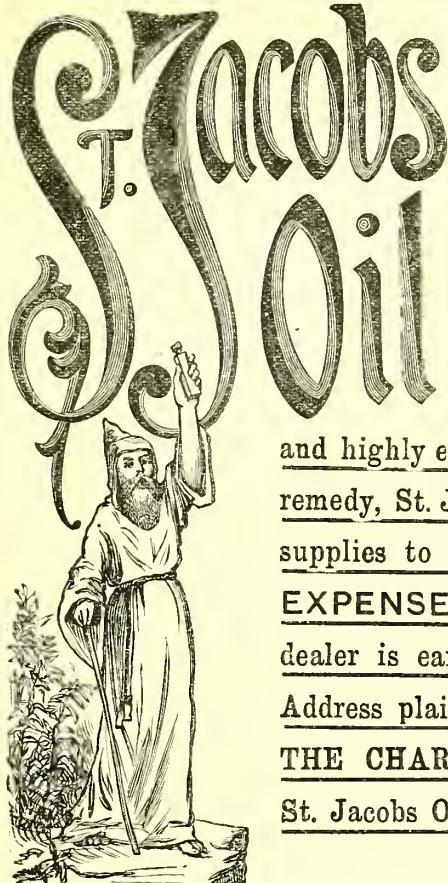
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"IT CONQUERS PAIN!"

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The following is a list of a few that they name *au hazard*, and that have a large sale:—

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6.. Alcool de Menthe Ricqles	44/-	6/- Capsules Matico	33/-	2/3.. Guyot's Gondron	18/-	7/0.. Rabuteau's Elixir Ferrug..	65/-		
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SPECIAL AGENTS FOR MARIANI'S ELIXIR, EXTRACT PATE, PILLS, SYRUP AND WINE OF COCA, AND FOR VALENTINE'S MEAT JUICE AND LE GRAND'S ORIZA PERFUMERY.

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The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of
ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.

Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing nearly
Double the quantity usually sold at that price), at **1/**, **2/6**, and **3/6** each.

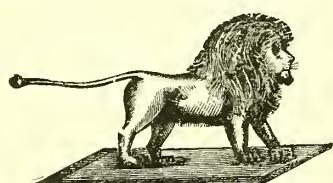
CAUTION.—Observe that the Signature of the Inventor is on every label.

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Is a valuable remedy in cases of SLEEPLESSNESS and WEAK NERVES. Bottles, **1/** and **2/** each.

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ACID, GALLIC — — — —	Almost white needles ... — — —	Freely and entirely soluble in alcohol or water.
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" SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
" TANNIC " — — — —	Lightest crystals ... — — — —	Dissolves almost colourless in water, alcohol, and ether.
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CHLORAL HYDRATE — —	White cake and crystal ... — —	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
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PARALDEHYD ... — — —	... — — — — — — — —	Absolutely purest.
POTASS. BROMIDE — —	Fine white dry regular crystals ... — — —	Perfectly free from iodide, and the most free from chloride.
" PERMANGANATE	Large and small crystals ... — — —	Chemically pure.
" IODIDE — — — —	Fine white dry regular crystals ... — — —	Apply Barytic and other tests. This will never change colour.
SODA SALICYLATE, and other Salicylates	White powder and crystals ... — — —	Freely soluble in water and alcohol.

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ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
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PEPSIN PORCI (100%) ... —	White, sweet, odourless powder —	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

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QUININE, Sulphate ... — —	Whitest and most bulky crystals ...	Utmost purity warranted.
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Each 3/-	5/-	9/-

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IMPROVED HIGH TEST
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Containing 99 per cent. of Bicarbonate of Soda.

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One Ton of Crystal Carbonate contains as much Alkali as 48 cwt.
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Retail at 13½d., 2s. 9d., 4s. 6d., and 11s.

We beg to inform our numerous customers, and the Trade generally, that we are WITHDRAWING THE 4-OZ. AND 10-OZ. DISPENSING sizes, and, instead, are putting up AN 11s. RETAIL SIZE. The wholesale price of the 4s. 6d. and 11s. will be at the same rate per oz. as the old 4-oz. and 10-oz. We shall still continue the undermentioned as usual.

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As originally introduced by A. P. Towle, and free from stamp duty for dispensing. 4 oz., ½ lb., 1 lb.

Also in quantities of 6 lbs. and upwards at special quotations.

TOWLE'S CHLORODYNE LOZENGES AND JUJUBES,

In 1, 2, and 4 lb. bottles, and 6d. and 1s. boxes. Foil lined, and neatly got up for the counter. Quantities of 7 lbs. of Lozenges and upwards stamped with chemist's own name free of charge.

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PURE AND CHEAP.

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Bicarbonate of Soda	96·81
Mono Carbonate of Soda	2·44
Sulphate of Soda	trace
Chloride of Sodium	·035
Chloride of Magnesia	·82
Moisture	nil
Insoluble	nil

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GUARANTEED 58 DEGREES,
EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,
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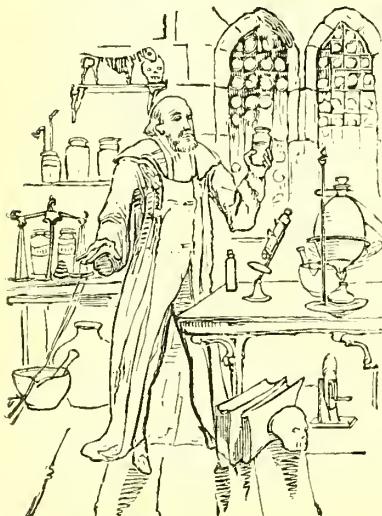
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IMPORTANT to CHEMISTS & DRUGGISTS.—Once you get your customers to give this Wonderful Medicine a trial your sale will increase, and their fame will soon become widely known.

In BOXES. 1s. 1½d.
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AGENTS WANTED
Bills, with Testimonials,
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Chemists and Druggists
Printed on, sent on
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The fatal effects frequently following the use of Narcotics in Patent Medicines suggested to the Proprietor of

STEDMAN'S TEETHING POWDERS



the advisability of having his Powders tested by Dr. HASSALL, the result of whose analysis is certified below, hence vendors need be under no apprehension of the pain, trouble, and censure connected with most inquests, the occasional result of fatal doses of Patent Medicines.

STEDMAN'S TEETHING POWDERS.

THE ANALYTICAL INSTITUTION,

54 HOLBORN VIADUCT, E.C.

LONDON, 29th Nov., 1877.

REPORT ON THE TEETHING POWDER PREPARED BY

MR. JAS. STEDMAN, HOXTON.

I hereby certify that I have purchased a sample of STEDMAN's Teething Powder, and have, at the request of the Proprietor, subjected it to Analysis for Morphia or Opium in any form.

I am enabled to state that I found the sample in question to be absolutely free from Morphia, or any other Alkaloid or constituent of Opium.

Thus STEDMAN's Teething Powder is favourably distinguished from similar preparations.

ARTHUR H. HASSALL, M.D.

Thus Vendors need not be under any apprehension of interference either by Police or Coroner, as the FREEDOM FROM NARCOTIC removes Stedman's Teething Powders from the "Scheduled Poisons" List, and prevents the possibility of inquests on account of the administration of these Powders.

THE INLAND REVENUE BOARD

Having pointed out the possibility of the bundles of 9 powders contained in the 11/- boxes of

STEDMAN'S TEETHING POWDERS

Being sold as packets of the same medicine, instead of in single powders, the Proprietor has met their objection by placing the powders in the box loose; and advises customers that the practice of selling unstamped bundles as packets is illegal, but that the powders may still be sold singly.

MANUFACTORY:—

125 NEW NORTH ROAD, LONDON, N.

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.



FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	Liverpool
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	York
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Raines, Blanshards & Co.,	Edinburgh
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sang & Barker,	"
Curling & Co.,	"	Hopkins & Williams,	"	Sanger, J., & Sons,	London
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Sim, James, & Co.,	Aberdeen
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Smeeton, W.,	Leeds
Dobbin, W., & Co.,	Belfast	Hunt, A., & Co.,	"	Southall & Co.,	Birmingham
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Sutton, W., & Co.,	London
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Tomlinson, Hayward & Co.,	Lincoln
Dunn & Company,	"	Lynch & Co.,	"	Treacher, Hodgkinson & Co.,	"
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westrup, J. B.,	Kensington
Evans, Gaid & Co.,	Exeter	Marsden & Sons,	London	Westwood & Hopkins,	Lincoln
Evans, Lescher & Webb,	London	Maw & Son,	"	Woolley, James,	Manchester
Ferris & Co.,	Bristol	Meggesson & Co.,	"	Wyles & Brown,	Coventry
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh	Yates & Co.,	London

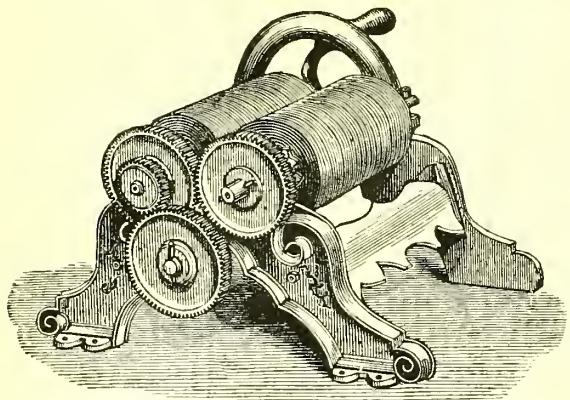
After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

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The most Safe, Efficacious, and Prompt VEGETABLE MEDICINE for Family Use.
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FIFTY-FIVE YEARS OF UNINTERRUPTED SUCCESS.

Pills in Boxes at 7½d., 1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Powders, 1s. 1½d. Ointment, 1s. 1½d. and 2s. 9d.

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CLARKE, BLEASDALE, BELL & CO.,
Wholesale Druggists and Manufacturing Chemists,

JOHN DALES, 1780.]

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PEARL-COATED TASTELESS PILLS.

ANTIBILIOUS PILLS, containing Aloes, Rhubarb, Jalap, Gamboge, Ginger, and $\frac{1}{16}$ grain Podophylline in each 5-grain Pill.

Price **6/0** per lb.; **5/6** for 14 lbs.; **5/0** for 56 lbs.

CHAMOMILE PILLS, containing, in addition to the above ingredients, English Oil of Chamomile
Price **6/0** per lb.; **5/6** for 14 lbs.; **5/0** for 56 lbs.

PIL. COMMUNIS (Uncoated), with or without one grain of Calomel in each 5-grain Pill.
Price **4/6** per lb.; **4/0** for 14 lbs.; **3/6** for 56 lbs.

We shall be glad to quote prices for making up private formulæ.

GRANULAR EFFERVESCENT CITRATE OF MAGNESIA.

SAMPLES AND PRICES ON APPLICATION.

Special make for large buyers. In 25-lb. Tins—Tins free. Five Tins at 9d. per lb. Twenty-five Tins at $8\frac{1}{2}d.$ per lb. Net in York.

EFFERVESCENT SALINE, 1/2 per lb. Special quotations for quantity.

COMPOSITION ESSENCE (quality unequalled), **1/0** per lb. Special terms to large buyers.

We shall be happy to send our Monthly Price List—containing Pill Formulæ, List of Sundries, &c.—to any Chemist on receipt of a post card.

A WONDERFUL MEDICINE!

Between thirty and forty years ago a Medicine was introduced to the public and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

In South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).

CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

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**THOMAS BEECHAM,
ST. HELENS, LANCASHIRE, ENGLAND.**

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX.

GELATINE COATED OVAL PILLS.

The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List of REDUCED PRICES on application.

POWDERED DRUGS. All ground in our own Mills, and of Guaranteed Purity.

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GLASS BOTTLE MANUFACTURERS,

381 to 383 KINGSLAND ROAD, LONDON, E.

Glass Bottles of every description, either Plain or Stoppered, made in White, Blue, Amber, Actinic Green, or any other colour required. Screw Nickel Capped Pomades, Honey Pots, Jelly Jars, &c., &c.



Makers of Opal Glass Covered Pots, in all sizes, which are far more Handsome and Cheaper than Earthenware.

H. R. & CO.'S PATENT GLASS SCREW STOPPERED FEEDING BOTTLES are the MOST PERFECT and Best to be obtained, and command a Ready Sale wherever introduced.

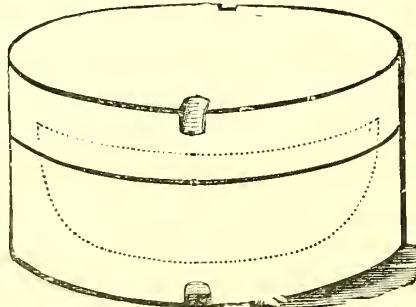
Special Attention given to Quality. Quotations Post Free to any part of the world on application. The above will be found the BEST and CHEAPEST HOUSE in the TRADE.

TOOGOOD'S NEW REGISTERED EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade, and possess the following Advantages:—

1st.—An India-rubber Band passed vertically over the pot is kept in its place by the notches, and effectually secures the lid; for travelling this supplies a want greatly needed.

2nd.—The Covers being made quite flat, labels can be affixed with ease, and without creasing.



3rd.—The inside of the Pots being rounded or egg shape, the contents can be entirely removed without waste.

4th.—Great attention has been paid to insure accuracy of contents.

PRICES, per gross.

$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1½ oz.
18/-	18/-	18/-	20/-	22/-	24/-
2	3	4	6	8 oz	
27/-	34/-	42/-	54/-	66/-	

MANUFACTURED BY

WHOLESALE GLASS BOTTLE MANUFACTURER
AND DRUGGISTS' SUNDRYMAN,

WILLIAM TOOGOOD,

35, 36, & 37 MOUNT STREET, GROSVENOR SQUARE, LONDON, W.

WILLIAM TOOGOOD'S REVISED PRICE CURRENT of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded free on application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.



FREEMAN'S CHLORODYNE

THE ORIGINAL AND ONLY TRUE



It is the Greatest Medical Discovery of the present Century, and is regarded as a boon to mankind.

It is the best known remedy for Coughs, Colds, Consumption, Whooping Cough, Bronchitis, and Asthma.

It effectively checks and arrests those too often fatal Diseases—Diphtheria, Diabetes, Fever, Croup, Ague, &c.

It acts like a charm in Diarrhoea, and is the only known Specific in Cholera and Dysentery.

It effectively cuts short all attacks of Epilepsy, Hysteria, Palpitation, Convulsions, and Spasms.

It is the only Palliative in Rheumatism, Gout, Cancer, Tooth-ache, Neuralgia, Sciatica, Lumbago, &c.

It rapidly relieves pain from whatever cause, allays the irritation of Fever, soothes and strengthens the system under exhaustive diseases, restores the deranged functions, stimulates healthy action of the secretions of the body, gives quiet and refreshing sleep, and marvellously prolongs life. It may be taken by old and young at all hours and times, according to the Directions.

It is extensively used by Medical Men in their official and private practice, at home and abroad, who have given numerous written testimonials of its wonderful efficacy.

SPECIMEN TESTIMONIALS.

From JOHN TANNER, M.D., L.R.C.P., M.R.C.S., L.S.A., L.M., Physician to Farringdon Dispensary, London; Physician to the Rev. C. H. Spurgeon's Metropolitan College, &c.

102 HARLEY STREET, CAVENDISH SQUARE W.

'It gives me great pleasure to hear testimony in favour of FREEMAN'S Chlorodyne. I have prescribed it extensively, and in cases of Asthma, Chronic Bronchitis, the last stage of Pneumonia, and the Winter Cough of the aged, I have never found any substitute or chemical combination its equal.'

EXTRACTS from the GENERAL BOARD OF HEALTH, LONDON, as to its efficacy in Cholera.

1st Stage, or Premonitory.—In this stage the remedy acts as a charm. One dose generally sufficient.

2nd Stage, or that of Vomiting or Purging.—In this stage the remedy

From J. DODD SWALLOW, M.D., M.R.C.S., Eng.; L.A.S.; Medical Officer to the London City Missions, &c., &c.

213 CLAPHAM ROAD, LONDON, S.W.

'I have great pleasure in stating that I am constantly prescribing FREEMAN'S Chlorodyne. In Consumption and Asthma, as a Sedative; in Cancer, and in cases of Diarrhoea and Dysentery, I am daily witnessing its striking effects, and believe that the thanks of the profession are due to Mr. FREEMAN for his efforts to bring prominently before the profession so valuable and reliable a remedy as the Chlorodyne which bears his name.'

possesses great power, more than any other we are acquainted with, two or three doses being sufficient.

3rd Stage, or Collapse.—*In all cases restoring the pulse.* So strongly are we convinced of the immense value of this remedy, that we cannot too forcibly urge the necessity of adopting it in all cases.

Sold by Chemists and Patent Medicine Dealers all over the world, in bottles, 1s. 1½d.; 2 ozs. 2s. 9d.; 4 ozs. 4s. 6d.; half-pints, 1s.; and pints, 2s. each; and by the Inventor, RICHARD FREEMAN, 79 Kennington Park Road, London, S.E.

Purchasers are cautioned not to have palmed upon them any substitute. See that the Trade Mark, "The Elephant," is on the wrapper, &c., and that the words Freeman's Original Chlorodyne are engraved on the Government Stamp, which is the only true Chlorodyne.

N.B.—Lord Chancellor Selborne, Lord Justice James, and Lord Justice Mellish decided in favour of Freeman's Original Chlorodyne, and against Brown and Davenport, compelling them to pay all costs in the suits. See *Times* of July 24, 1873.

Trade Notice.]



[Trade Notice.

ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.
WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—
11 RUSSELL STREET, DOWNING STREET, MANCHESTER.
SHOW CARDS AND BILLS ON APPLICATION.

TRADE MARK

REGISTERED.

STYPIUM

ANTISEPTIC DRESSING,

One of the most Reliable Antiseptic Agents for application to Wounds, recent or otherwise, in the Market.

FOR FOUL DISCHARGING SORES, CANCEROUS ULCERS, PILES, FISTULA, &c.
Made up in $\frac{1}{2}$ -lb. and 1-lb. Cases.

SEPHENSON & TRAVIS, 12 HOPWOOD STREET, LIVERPOOL.

TELEGRAPHIC ADDRESS—"BURROCALE," LONDON.

BURROUGH'S Cale St.
Distillery
Best Methylated Spirits
CHELSEA,
S.W.

AT LOWEST PRICES.

BURROUGH'S
SPIRITUS RECTIFICATUS P.B.

SPIRITS OF WINE

5 SENS. 56 o.p. 19 $\frac{1}{4}$ cash.
THE BEST ENGLISH GRAIN SPIRIT
FREE FROM FUSSEL OIL CHEMICALLY PURE.
Special Quotation for Quality.

JAMES BURROUGH
LONDON, S.W.

BEST METHYLATED SPIRIT AND FINISH.**X PURE SPIRITS OF WINE,**

For Tinctures, Essences, Perfumes, &c.

REDUCED LIST OF PRICES.

Strength per cent.	Specific gravity.	Price per gall.
63 over proof ...	0·8238	20/3
60 "	0·8298	19 10
55 "	0·8266	19 3
50 "	0·8482	18 7

Cash on delivery. Jars to be returned or paid for. Special Quotations for Large Quantities.

SHERRY,

FOR PHARMACEUTICAL PURPOSES, 5/6 to 7/6 per gallon.

MALAGA,

RED, FOR PHARMACEUTICAL PURPOSES, 5/6 per gallon.

ORANGE WINE,FOR PHARMACEUTICAL PURPOSES, 4/ & 4/6 per gall.
(VIN. AURANTII, B.P.)**QUININE,**

THE BEST ENGLISH AND FOREIGN MAKES.

ABSOLUTE ALCOHOL.

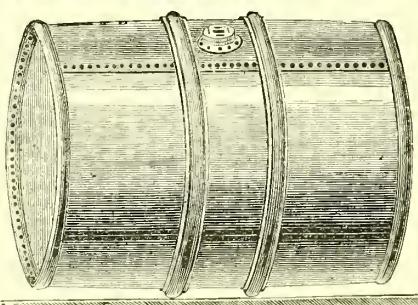
PRICES ON APPLICATION.

A. MACNAIR & CO.,Licensed Rectifiers, and
Makers of Methylated Spirit,
20 DUTTON STREET,

Telegrams—"AMACK MANCHESTER."

MANCHESTER.**B. NOAKES & CO.,**MANUFACTURERS OF
Metallic Casks, Drums, & Kegs

ENAMELLED, PLAIN, AND DECORATED

TIN CANISTERS AND BOXES,
FOR PACKING CHEMISTS' AND DRUGGISTS'
SUNDRIES.**ENAMELLED SHOW CARDS.**IRON BARRELS,
CAPACITY 40 TO 120 GALLONS
AS PER ILLUSTRATION.Cable and Telegraphic Address—
"NOAKES LONDON."

These large Iron Casks, similar to sketch, can be handled with equal facility to wooden barrels, and, owing to their strength and durability, can be used over and over again for an indefinite period. They are perfectly liquid tight, being tested at a very high air pressure, and, unlike wood, do not absorb any of the contents. They are all fitted with interchangeable screw bungs, and can also be fitted with screw plug in head, for draw-off tap.

They are specially adapted for all kinds of Chemical Products, Sulphuric Acid, Glycerine, Spirits, Oils, Turpentine, Petroleum, Benzoline, Varnishes, Tar, Naphtha, Mineral Extracts, and Inflammable Liquids of every description.

We are making them in three qualities, "Black Iron," "Lead Coated," and "Tinned."

PRICE LIST ON APPLICATION.

Offices and Works: 142 SPA ROAD, BERMONDSEY, LONDON, S.E.

NEEDHAM'S POLISHING

Gold Medal, Adelaide, 1881.
Order of Merit, Melbourne, 1880.
Diploma of Merit, Vienna, 1873.

Established over Half a Century.

For Cleaning and
Polishing Brass, Copper,
Tin, Britannia Metal,
&c., &c.



Pickering's Furniture Polish, Plate Powder, Knife Powder,
Brunswick Black, Razor Paste, Harness Blacking,
Polishing Pomade (red) for Metals, &c.

JOSEPH PICKERING & SONS, SHEFFIELD.

PASTE.

THREE
GOLD
MEDALS.

The Leading Article for Waterproofing, Softening, and Preserving BOOTS, LEGGINGS, HARNESS, MACHINE BELTING, FIRE HOSE, &c.

DALES' GOLD MEDAL PORPOISE OIL DUBBIN

Does not prevent the boots blacking. Free from unpleasant odour. Makes leather goods wear three times longer than ordinarily. Sells well and pleases the buyer. Put up in superior style in tins, 2d., 6d., 1s., and 2s. 6d. (No retail price on tins. Special tins for export.) Show Cards, &c., supplied; also handsome Show Cases for first orders for 50s. For further particulars see page 64 in 1885 Diary. WHOLESALE AGENTS WANTED.

HIGHEST AWARDS

JOHN T. DALE, 287 Crystal Palace Road, LONDON. S.E.

PURE SPIRITS OF WINE.

60 o.p., 20s. 6d. per Gall.; 56 o.p., 20s. per Gall.

1s. per gall. disct. for cash with order. Further allowance for quantity. Steam Stills only.

GEORGE PHILLIPS & CO.,

ST. ANDREW'S DISTILLERY, CLERKENWELL ROAD, LONDON, E.C.

JONES & MASON, METHYLATED SPIRIT MAKERS.

Regent Wharf, Copperfield Road, Mile End, London, E.
FROM RATCLIFFE.

SAMPLES AND PRICES UPON APPLICATION.

METHYLATED SPIRIT & FINISH

Supplied of the best quality in wholesale quantities by
J. & W. HARVEY & CO., Distillers, Yoker, GLASGOW.

LONDON AGENTS—JAMES CHAMBERS & CO., 23 BIRCHIN LANE, CORNHILL, E.C.

OXFORD ROAD DISTILLERY, MANCHESTER.

Important to Chemists and Druggists.

REVISED AND REDUCED LIST.

Messrs. J. GIBB SMITH & CO.

Beg to call the attention of Chemists and Druggists to the undermentioned Prices

Strength per cent.	Specific Gravity.	Price per Gallon.
68 over Proof	0.8238	20 3
60 "	0.8298	19 10
55 "	0.8366	19 3
50 "	0.8482	18 7

Special quotations for large quantities. Terms: CASI ON DELIVERY.

Jars to be returned or paid for. Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows:—2 gallons, 3/3 gallons, 3/6; 4 gallons, 4/3; 6 gallons, 6/.

When the empties are returned the money will be repaid.

P.S.—SHERRY, FOR PHARMACEUTICAL PURPOSES ... 5 6 per gall.
MALAGA, Red, ditto ditto 5 6 "

N.B.—1d. per gall. allowed to those who send their own Jars and take delivery at our warehouse.

Starching made easy and pleasant.



Suitable for hot or cold water starch.

Prevents the iron sticking to the linen.

Sold in 1d., 3d., 6d., and 1s. Packets, and in Large Boxes, for Hotels, Laundries, &c., 5s., 10s., and 20s. each.

Wholesale by Maw & Sons, Evans, Sons & Co., Southall Bros., & Barclay, Wyleys & Co., &c.

GENUINE OIL OF MUSTARD SEED

Is strongly recommended as a safe and effectual remedy in cases of Rheumatism, Gout, Rheumatic Gout, Sciatica, Lumbago, Headache, Pains in the Stomach, Spasms, Bruises, Chilblains, &c. Retail in Bottles, 1s. each.

Imported by J. H. & S. JOHNSON, Wholesale Druggists, 6, 8, & 10 WHITECHAPEL, AND 7 CHURCH STREET, LIVERPOOL.

PITCH,
OILS, TALLOW, &c.

CORRESPONDENCE SOLICITED. SAMPLES AND LOWEST PRICES ON APPLICATION.

J. R. PEACE & CO.,
26 ALEXANDRA BUILDINGS,

Established] 41 Ormond Street, Liverpool, [1867.
IMPORTERS OF AND MERCHANTS IN ALL KINDS OF PITCH, OILS, &c.
Hard and Soft Stearine Pitch Hot Neck Grease India Rubber Substitute
Cotton Seed and Patent " Turpentine & Rosin Roll and Flour Sulphur
Brown, Vegetable, & Wood, " Soft Soap, Glue, &c. Tallow, Cylinder Oils
Stockholm and Archangel " Brimstone, Ashes, &c. R. D. Petroleum Oils, and
Palm Oil and Rosin " Elastikon. General Produce.

A. GÉRARD, 21 JEWIN CRESCENT, LONDON, E.C.

MANUFACTURER OF

HIGH-CLASS TOILET BRUSHES, FRENCH DRESSING COMBS, MIRRORS, NAIL, TOOTH, AND SHAVING BRUSHES, AT THE VERY LOWEST PRICES.

MANUFACTURER OF

HIGH-CLASS POCKET CUTLERY, AND SOLE MAKER OF THE ORIGINAL REAL GERMAN HOLLOW-GROUND RAZORS.

ILLUSTRATED PRICE LISTS FREE ON APPLICATION.

SPECIALITIES in Solid Back Toilet Brushes and Oval Hand Mirrors.

HOUBIGANT,

Perfumer to H.M. the Queen of England,
19 RUE DU FAUBOURG ST. HONORÉ,
PARIS.

Manufactory of the Finest Perfumery.

Toilet Waters, Eau de Cologne, Essences
for the Handkerchief, Toilet Soaps, Rice
Powders, Cosmetics.

PRICES CURRENT AND CATALOGUES ON DEMAND.

Matthews's Fullers Earth.

Used in the Roy 1 Nurseries, and highly recommended by the Faculty; it protects the Skin from cold winds, chaps, &c., and preserves the Complexion.

SOLD BY ALL THE WHOLESALE HOUSES.
ROUSE & CO., 12 WIGMORE STREET, LONDON.

FRICTION.

THE MOST PLEASANT MODE OF APPLYING IT TO THE SKIN IS BY THE
PANSTREPTON (or All-Pliant) FLESH BRUSH.

The best Article ever introduced for the purpose.

PRICES FROM 22/- to 36/- per doz.

Of all WHOLESALE HOUSES or of the SOLE MANUFACTURER,
R. CONDRON, 2 BINGFIELD STREET, LONDON, N.

INDEX TO ADVERTISEMENTS,

See Pages vii-ix.

THE MORGAN CRUCIBLE COMPANY

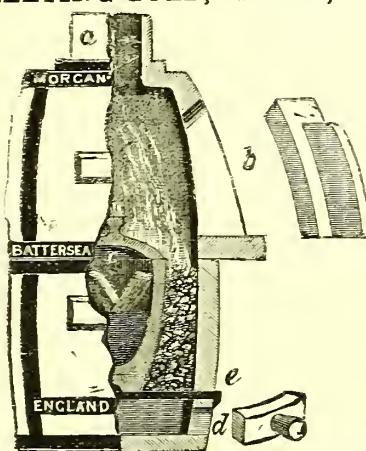
(THE PATENT PLUMBAGO CRUCIBLE COMPANY)

Sole Manufacturers of MORGAN'S and SALAMANDER CRUCIBLES.

PORTABLE FURNACES.

IRON BOUND. EXTERIOR DIMENSIONS.

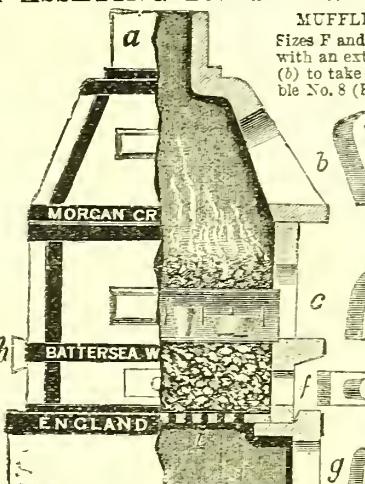
For MELTING GOLD, SILVER, COPPER, &c.



No.	Diam. in.	Diam. milli.	Height in.	Hantent. milli.	For Morgan's Crucible	Price £ s d.
A	9 ¹ / ₂	235	17 ¹ / ₂	445	No. 2	1 0 0
B	9 ¹ / ₂	248	20	508	" 4 "	1 5 0
C	11	280	22	559	" 6 "	1 10 0
D	13 ¹ / ₂	349	26	680	" 8 "	2 5 0
K	14 ¹ / ₂	369	28	712	" 12 "	3 0 0
F	13	457	32	813	" 18 "	4 0 0

a, Scale on which to weigh the crucible and cover. b, Door for the furnace. c, Iron door handle. d, Door for the furnace. e, Iron door handle. f, Door for the furnace. g, Door for the furnace.

For ASSAYING DENTAL WORK, &c.



MUFFLE FURNACES.
Sizes F and K are also made
with an extra large top door
(b) to take a Morgan's Crucible
No. 8 (F) and No. 20 (K).

a, Muffle, a, door for the furnace and door to the chamber. b, Muffle door. c, Muffle door. d, door for the furnace. e, door for the furnace. f, door for the furnace. g, door for the furnace.

Exterior dimensions. Interior dimensions.

	Width and depth front to back	Largur et profondeur	Width and depth front to back	Largur profondeur	For Battersea Muffles	Price
A	12 ¹ / ₂	318	9 ¹ / ₂	235	A B C D	£2 0 0
B	13 ¹ / ₂	337	10	254	B C D E	2 5 0
C	14 ¹ / ₂	369	11	280	C D E F H	2 10 0
D	15 ¹ / ₂	394	12	305	D E F G H	3 0 0
E	16 ¹ / ₂	414	12 ¹ / ₂	324	E F G H	3 10 0
F	17 ¹ / ₂	445	13 ¹ / ₂	350	F G H J	4 0 0
K	23	585	19	483	K L	0 0 0

ROASTING DISHES.

Diam. in.	Diam. milli.	Per doz.	Diam. in.	Diam. milli.	Per doz.
2 ¹ / ₂	664	1 3	4	102	1 9
3	777	1 6	5	127	2/
					Larger sizes to order.

SCORIFIERS. (PER GROSS.)

Diam. in.	Diam. milli.	Price.	Diam. in.	Diam. milli.	Price.
1	26	3	2 ¹ / ₂	664	5/
1 ¹ / ₂	332	8/6	2 ¹ / ₂	70	6/
2	388	4/	3	777	7 6/
2 ¹ / ₂	51	4/6	3 ¹ / ₂	889	9/
3	657	4/6	4	102	10/6



MUFFLES.

With or without
apertures.



No.	Long. in.	Wide. in.	High. in.	Price, per doz.	No.	Long. in.	Wide. in.	High. in.	Price, per doz.
A	3 ¹ / ₂	3 ¹ / ₂	12	21	G	11	4	2 ¹ / ₂	21
B	4 ¹ / ₂	4 ¹ / ₂	15	25	H	10 ¹ / ₂	5 ¹ / ₂	3	25
C	6 ¹ / ₂	4 ¹ / ₂	18	33	J	12	6	4	33
D	8 ¹ / ₂	5	21	48	K	14	8	5	48
E	9 ¹ / ₂	5 ¹ / ₂	24	54	L	15	9	6	54
F	10	6	27						

Sizes A to F, also K, are suited for the Furnaces of the same letters.

G to L have one slit at back only.

Muffles can be made of all shapes and sizes, suitable for Assayers,

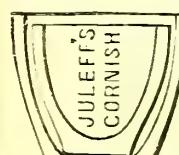
Enamellers, Dentists, &c.

H is generally known as United States Mint pattern.

ASSAY CRUCIBLES.

FOR COPPER.

CORNISH FORM AND QUALITY (JULLEFF).



High, Hauteur, Diam. Diam.
in. milli. in. milli.
Nest of Two { 3¹/₂ .083 3 .077
{ 2¹/₂ .064 2 .051 } 2/ per doz.

Single.. .. 2 .. .051 2¹/₂ .064 1/ "

All sizes and shapes to order.

FOR TIN.

High, Hauteur, Diam. Diam.
in. milli. in. milli.
3¹/₂ .. .083 .. 3 .. .077 .. 6/ per doz.

Covers, 2/ per doz.

THE MINT OF THE UNITED STATES AT SAN FRANCISCO.

OFFICE OF THE ASSAYER.

SAN FRANCISCO, CAL., April 19, 1877.

SIRS.—I have tested and used the Assay Crucibles and Annealing Cups, and can with assurance recommend their superior quality and durability.

Respectfully yours, &c.,
O. D. MUNSON, Assayer.

3 in. diam., .077 diam. milli, with Covers, 2/3 per doz.

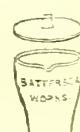
Other sizes to order.

FOR LEAD.

These are perfectly smooth and of the correct porosity.

No.	Diam. in.	Diam. milli.	Height in.	Hantent. milli.	Per doz.
A	1 ¹ / ₂	.027	1 ¹ / ₂	.027	2/
B	1 ¹ / ₂	.032	1 ¹ / ₂	.032	2/
C	1 ¹ / ₂	.038	1 ¹ / ₂	.038	2/
D	1 ¹ / ₂	.045	1 ¹ / ₂	.051	2/

Covers for either size, 6d. per doz.



AACHEN, July 23, 1880.

For several years past I have used Fire Clay Assay Furnaces, Muffles, and Crucibles made by the Patent Plumbago Crucible Co., Battersea Works, London, S.W., and am so thoroughly satisfied with them that I strongly recommend this manufacture to all laboratories, refiners, and smelting works.

(Signed) PROF. DR. DÜRRE,
Der Königl Rheinisch Westfälischen Polytechnischen Hochschule.

NOTICE.—Care should be taken in all instances, when ordering, to specify the Crucibles, &c., manufactured by

THE MORGAN CRUCIBLE CO. (Sole Manufacturers of Morgan's and Salamander Crucibles), Battersea Works, LONDON, S.W.

Sole Manufacturers of JULLEFF'S Cornish Crucibles for Copper, Tin, &c.

SPECIALITIES IN BOND'S "OAK TREE" INDELIBLE MARKING INK.

Warranted to Remain Fluid in all Climates.

THE HOUSEHOLD & TRAVELLER'S REQUISITE.

A really GENUINE, Useful, and Convenient Combination.

Consisting of a large (honest) Patent Stoppered Bottle of BOND'S GENUINE Indelible MARKING INK, one of SCOFIELD'S EMERALD Marking Pens (of expressly prepared material) for marking the most difficult Fabrics.

Both secured in Handsom' Box, complete, with full directions for use in English, French, German, and Spanish. The Proprietor Guarantees the above Specialities the BEST VALUE ever offered to the Trade and Public in BOND'S GENUINE Marking Ink.

PLEASE WRITE FOR WHOLESALE PRICES.

Ordinary Inks, in all convenient forms, for Export and Counter Trade.

6d. and 1s. in Blue Wrapper, Red Trade Mark, boxed or carded in 1 dozen.

6d. and 1s. Pedestals, with Stretcher, in $\frac{1}{2}$ dozen and 1 dozen boxes.

$\frac{1}{2}$ -oz. and 1-oz. Stoppered Bottles in boxwood boxes, for the use of Large Establishments, Retail, 2s. 6d. and 5s.

Each Bottle well filled and securely corked, and Warranted NOT TO DRY UP IN THE BOITLE.



Complete Illustrated Price List on application. Write for Handsom' Size card, Handbills, and Specimen on Linen. Liberal Discounts to Shippers and the Trade.

CAUTION AGAINST SPURIOUS IMITATIONS.
In ordering write for BOND'S "OAK TREE" Marking Ink, as none are GENUINE unless bearing the Trade Mark—an OAK TREE and the Name CHRISTIAN on each Wrapper and Box.

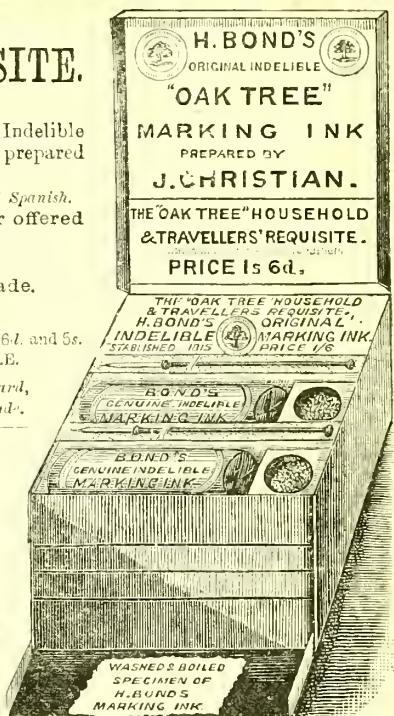
PREPARED ONLY BY

J. CHRISTIAN;
Sole Proprietor.

(Late A. W. Christian, Successor to H. BOND.)

ONLY ADDRESS.

46 City Road, near Finsbury Square, London, E.C.

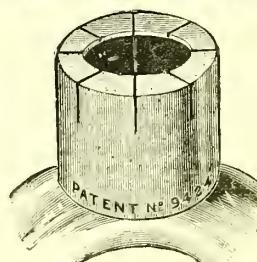


Packed for the Trade as above, in strong Boxes, containing $\frac{1}{2}$ dozen. A washed and boiled specimen of marked linen within Box.

The above in Handsom Box, containing Glass Stoppered Bottle of H. BOND's ORIGINAL INK, also a Large Improved Stretcher covered with Wash-leather, and fitted with two-hand-cut Quill Pens. PRICE 16 EACH.

BREIDENBACH'S PATENT LOCK STOPPER.

INEXHAUSTIBLE SMELLING SALTS.



By this means the stopper is never released from the bottle except when required; it is then simply withdrawn in the ordinary manner and replaced without the slightest difficulty. The object of this invention is to retain the PUNGENCY and STRENGTH of the Salts for a much longer period than in the ordinary bottle.

PRICES.

Watch Shape, Plated Silver Mounts.

Nos.	Retail	Wholesale, per doz.
845	16	12-
848	26	20-

Watch Shape, Solid Silver Mounts.

Nos.	Retail	Wholesale, per doz.
840	3 6	28/-
841	5 6	44/-
842	7 6	60/-

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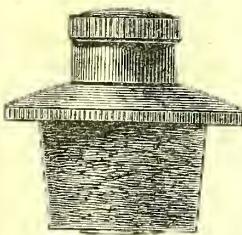
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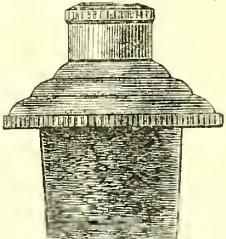
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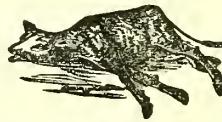
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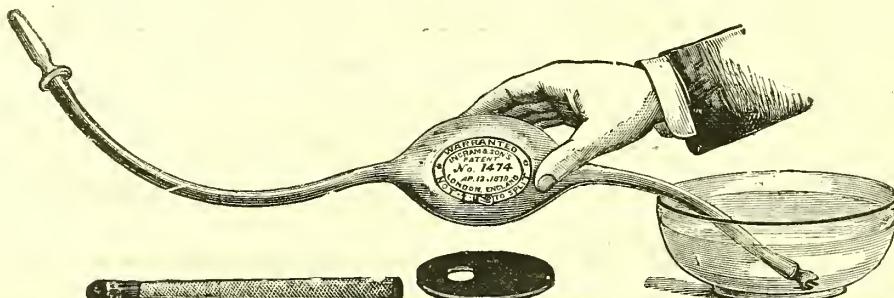
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Favourably noticed in "British Medical Journal," December 13, 1879; in the "Lancet," January 3, 1880; and in "British Medical Journal," September 30, 1882.

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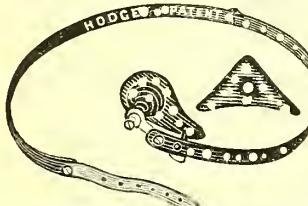
This Filter originates in the laboratory of the celebrated Prof. Pasteur, of Paris, and embodies the results of many years' investigation by Prof. Pasteur and his collaborateur, Dr. Chamberland.

It completely sterilizes water, removing all impurities, while at the same time the aeration of the water is retained. The special porcelain filtering tubes employed are cleansed by simple washing, and as no impurity can penetrate them they need no renewing, and can never deliver impure water.

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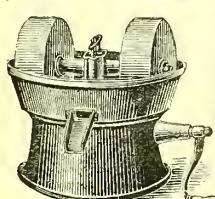
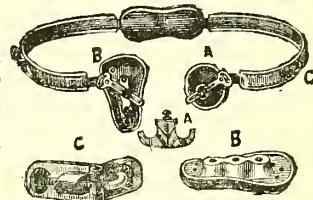


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Drug Mills, Tincture Presses in Wood and Iron, Edge Runners, Mixing Machines, Pan Mills, Paint and Colour Grinding Machines, &c.

PRICES AND PARTICULARS ON APPLICATION.

THE MORGAN CRUCIBLE COMPANY

(SOLE MANUFACTURERS OF MORGAN'S AND SALAMANDER CRUCIBLES),

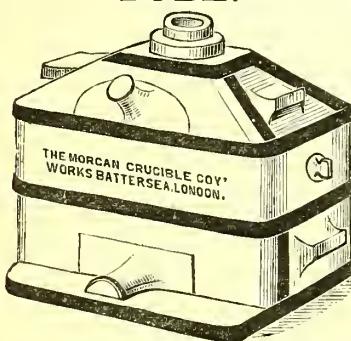
BATTERSEA WORKS, LONDON, S.W.

PORTABLE FURNACES,

FOR USE WITH CHARCOAL, COKE, &c.

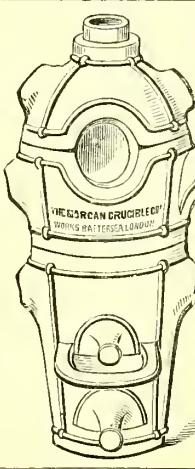
IRON BOUND. INTERIOR DIMENSIONS.

TUBE.



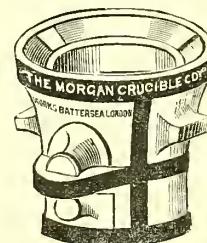
No.	Length.	Wide.	Price.
1 ..	9½ in.	5½ in. ..	£0 16 0
2 ..	10 "	6 " ..	0 18 0
3 ..	10½ "	6½ " ..	1 0 0
4 ..	13 ..	6¾ " ..	1 5 0

UNIVERSAL.



22 ins. high with chimney (23 ins.), 9 lbs. wide out, 6 ins. wide in, 15s.
The UNIVERSAL FURNACE, useful for Laboratory. For distilling, as shown in engraving, 1-pint capacity. Reports, 20s. per dozen; with Muffle Ring, 3s. extra, for Muffles, 7×3½×2½ (Muffles, 12s. per dozen); Ring for tube use, 3s. extra. Base to stand Furnace on lecture table, 3s.

EVAPORATING.



No.	Diam. Inside.	Price. s. d.
1 ..	4½ in.	2 6
2 ..	5½ " ..	3 6
3 ..	6½ " ..	4 6
4 ..	8½ " ..	6 0
5 ..	10 " ..	8 0
6 ..	10½ " ..	12 0
7 ..	11½ " ..	15 0
8 ..	13 " ..	18 0

NOTICE.—Care should be taken when indenting to specify

THE MORGAN CRUCIBLE CO. (Sole Manufacturers of Morgan's and Salamander Crucibles), Battersea Works, LONDON, S.W.

CRAWSHAW'S CRYSTAL

DYES.

BROWN
VIOLET
MAGENTA
PUCE
CRIMSON
BLUE
MAUVE
MAROON
PURPLE
LAVENDER
ORANGE
CARDINAL
SLATE
YELLOW
BLACK
REVIVER
GREEN
PONCEAU
SCARLET
PINK
CLARET
CERISE

TRADE

MARK.

ROSE
CANARY
GREY
CAMBRIDGE
BLUE
OXFORD BLUE
NAVY BLUE
DARK BLUE
LIGHT BLUE
RED
SULTAN RED
PRIMROSE
PEACH
BLOSSOM
RUBY
LILAC
DARK BROWN
LIGHT do.
DARK GREEN
BUFF
PLUM
DRAB



THESE Dyes are specially manufactured for the purpose of affording to heads of families and others the means of Dyeing at home, for a small cost. Faded Articles of Wearing Apparel, &c. Silks, Ribbons, Feathers, Woolen Goods and Staffs of all descriptions take the Dye readily. They are easy to use; they are economical in price. The colours are beautiful and brilliant, and anything can be dyed with them in a few minutes. One Sixpenny Packet of the Crystals will go as far as six Sixpenny bottles of the ordinary Liquid Dyes. Each colour will produce any desired shade of its own colour, according to the quantity used. There is sufficient in a Sixpenny Packet to Dye a Lady's Dress, or half-a-dozen Children's Frocks, or 100 yards of Ribbon, &c., &c.

NOTE Chemists who have not yet tried these Dyes will find it to their advantage to do so. There is no loss or mess from leakage, and their great utility and superiority has been readily proved wherever they have been tried.



Ebonised Counter Case containing

6 gross 1d. Dyes, price 42s.



Ebonised Counter Case containing

1 gross 6d. Dyes, price 48s.

	Per Gross.
1s. Bottles Crawshaw's Crystal Dyes. In Boxes of 1 doz.	96/-
6d. Boxes Crawshaw's Crystal Dyes. In $\frac{1}{2}$ gross (7 doz.)	
Counter Case with Glass Lid	48/-
6d. Boxes Crawshaw's Crystal Dyes. In Boxes of	
1 doz. (14)	48/-
3d. Packets Crawshaw's Useful Dyes. In $\frac{1}{2}$ gross Card-	
board Boxes	21/-
3d. Packets Crawshaw's Useful Dyes. Mounted on	
Cards of $\frac{1}{2}$ gross	21/-
2d. Packets Crawshaw's Useful Dyes. In $\frac{1}{2}$ gross Card-	
board Boxes	14/-
2d. Packets Crawshaw's Useful Dyes. Mounted on Cards	
of $\frac{1}{2}$ gross	14/-

	Per Gross.
1d. Packets Crawshaw's Useful Dyes. In 3 gross	
Counter Case with Glass Lid	7/-
1d. Packets Crawshaw's Useful Dyes. In $\frac{1}{2}$ gross	
Cardboard Boxes	7/-
1d. Packets Crawshaw's Useful Dyes. Mounted on	
$\frac{1}{2}$ gross Cards	7/-
The Excelsior Penny Dyes. Mounted on Cards of $\frac{1}{2}$ gross	
each. These Dyes are good value for the money; suitable	
for low-class Wholesale Trade, and where Cheap Goods are	
required. There is no makers Name on the Packets or	
Cards	56/-
6d. Perfect Black Dye. In $\frac{1}{2}$ gross Wood Boxes	48/-
3d. Perfect Black Dye. In $\frac{1}{2}$ gross Wood Boxes	21/-

SUPPLIED BY ALL THE WHOLESALE HOUSES.

E. CRAWSHAW & CO., 80 FANN ST., ALDERSGATE ST., LONDON, E.C.